Featuring Iron Ore as National Issue

THE FINANCIAL POST

The Canadian Newspaper for Business Men and Investors

VOL. XVIII. Annual Subscription, $5.00 PUBLICATION OFFICE: TORONTO, FEBRUARY 29, 1924 Single Copies, 10 Cents No. 9

OTTAWA EVENTS ARE BIG FACTOR IN THE OUTLOOK

Election Possibilities Must be Given Some Attention

DEMANDS BEING MADE

Government Will Have Difficulty in Keeping Brakes on Public Works—Bright Features of Situation

The trend of events during the parliamentary session at Ottawa will be followed closely by business. Not only is there the question of taxation relief, which is dependent upon reduced public spending, but the political atmosphere is so uncertain that an appeal to the country is more than a possibility should the Progressives strongly oppose the government program. An election under prevailing conditions, and involving such issues as taxation, the tariff, the banking system, etc., would mean a period of hesitancy and uncertainty which would probably have the effect of offsetting such moderate progress as is being made. Assurance of sound government, which would give considerate treatment to questions affecting business would, however, undoubtedly be followed by marked recovery.

Forced by public opinion to consider a reduction in taxation, the government has been taking definite steps to trim its estimates and reorganize the civil service, looking to a balanced budget. But, while boards of trade and other public bodies have been calling for retrenchment, sectional demands for government grants have been revived. Delegates from the Maritimes are calling for improved transportation and shipping facilities, the prairies want branch railways, British Columbia is asking for Pacific port facilities, and Ontario is agitating for St. Lawrence power development. The government is showing a disposition to put the brakes on expenditures, but, in the event of the Progressives enforcing their demands for prairie railways, tariff concessions, etc., a spending program may be inaugurated which will be difficult to check; other provinces are certain to demand their share. On the other hand, if the Progressives are not met, and an election is brought on, it is too much to hope that the usual pre-election program of costly public projects will be departed from.

If the tariff is not brought before the house by the Progressives, with their usual proposals, it will be brought up on other issues. The woollen manufacturers have been making a strong case for protection against British goods, and continental products, brought in as British, on the ground that valuation for duty on the basis of depreciated currency amounts in effect to a bonus to foreign manufacturers. Imports of these products have been greatly increased, and Canadian plants are suffering. Canadian boot and shoe makers have a similar case. Another tariff question has to do with the proposal of Washington to increase the duty on Canadian wheat, flour and wheat products. It will be interesting to note the effect on the Canadian farmers' attitude to the tariff on American manufactures if the duty against Canadian wheat and other farm products is raised.

Then there is the question of the Bank Act. The attitude of the government seems to favor a fair trial of the revised act of last session, on the ground that the changes made will prevent such failures as the Home Bank, but some changes to meet public opinion may become a matter of expediency and then certain proposals and experiments by private members are almost certain to crop up, and public opinion on this issue would no doubt be an important factor in the event of an election.

The Business Outlook

Changes in the current business situation are not important. The tone is better and there are prospects of improvement in the movement of goods with spring demand. This refers particularly to Western Canada. Alberta, for instance, officially reports that the crop of 1923 more than

(Continued on page 8)

Business Better Than a Year Ago in Canada

From Our Own Correspondent.

MONTREAL.—Business turnover in Canada started off on a broader scale in January than in the early weeks of 1923. Freight traffic records indicate 2,468,311,697 tons of freight moved on Canadian railroads in January, 1924, as compared with 2,093,039,296 in January, 1923.

According to THE FINANCIAL POST'S advance record, freight movements in January compared with previous months as follows:

	1922	1923
September ..	2,726,228,604	3,197,654,110
October . ..	3,971,591,874	4,552,177,006
November ..	3,828,836,371	4,489,149,459
December ..	3,308,708,272	3,830,979,671
	1923	1924
January . ..	2,093,039,296	2,468,311,697

The figures show the number of tons of freight moved one mile on the C. P. R. and C. N. R. Canadian lines.

Few of the British Harvesters Unemployed

LONDON.—Replying to questions in the House of Commons to-day, William Lunn, parliamentary secretary to the Overseas Trade Department, said that only a few of the 12,000 who went to Canada from Great Britain for harvesting work had failed to find employment. About 700 who were found to be unfit for farm work were repatriated. It is understood that a certain number of others, although offered work, refused to accept it, but he was unaware of the reasons for their refusing. He understand that about 11,000 of the British harvesters remained in Canada.

This bears out information previously presented by THE FINANCIAL POST to show that a great deal of fuss was being made by a few disgruntled newcomers, while thousands were making good and saying nothing.

EMBARGO WOULD FORCE U.S. PLANTS INTO ONTARIO

Ontario Legislature to be Asked to Prevent Wholesale Exportation of Logs

Ontario Legislature will be asked to approve of legislation placing an embargo on the exportation of hardwood from the province. The measure is designed to force U. S. plants in Minnesota and Wisconsin to cross into Ontario to manufacture their products if they desire to use Ontario hardwood. The measure is similar to the pine embargo of some years ago. That measure resulted in many saw mills locating in the north.

There are about 1,300 hardwood plants located in Wisconsin and Minnesota. Henry Ford entered the area and purchased practically all the available reserves. The estimate made to-day is that the end of seven years will see but 100 to 110 of these plants remaining because of the exhaustion of their supply of raw material. Realizing this there has been a rush into Algoma, U. S. concerns have eagerly sought control of the available limits on the Canadian side. It is understood that one American concern made a contract to ship 100,000,000 feet of hardwood across Lake Superior. This was to have gone to the Iron Mountain plant of Henry Ford.

Ontario's reserves of hardwood are limited. The estimate is that the small area in which hardwood thrives contains 6,500,000,000 feet. This includes the big forest reserve and runs north to the border of the clay-belt.

In discussing the embargo Hon. James Lyons, Ontario's Minister of Lands and Forests, pointed out that some years ago the numerous saw mills around Saginaw and Bay City, Mich., were exporting Canadian logs heavily. An embargo was placed on their exportation with the result that there is $75,000,000 invested in saw mills around the Soo to-day. The C.P.R. line, Soo to Sudbury, is studded with them. He also points out that in 1900 there was an embargo in regard pulp with the result that $190,000,000 are invested in the pulp plants of the province to-day.

ABITIBI PRODUCED MORE PAPER IN 1923

Annual Statement Due Shortly and Should Indicate Very Satisfactory Condition

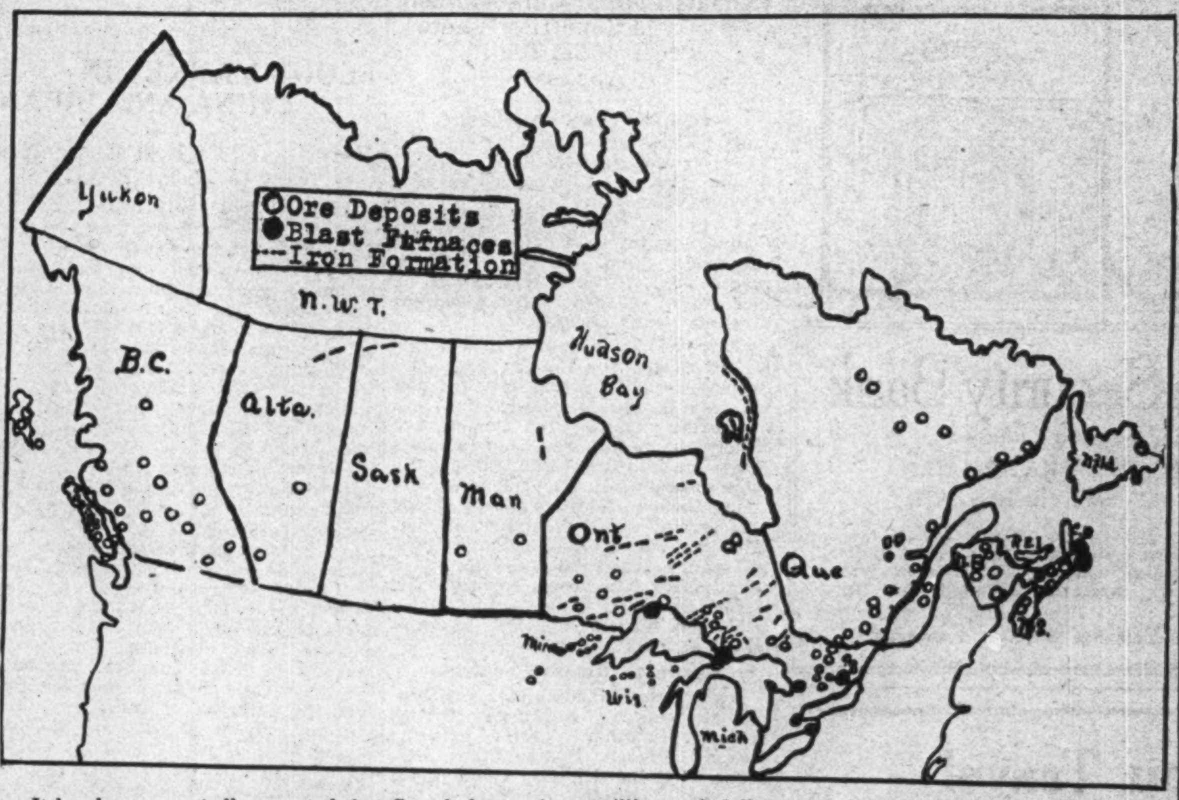
From Our Own Correspondent.

MONTREAL.—Abitibi Power and Paper Company is applying to the Ontario legislature for a change in the corporate status of its subsidiary, the Abitibi Transportation and Navigation Company. The change is merely to give the company the powers of a railway company and involves changing the name to the Abitibi Railway and Navigation Company. It does not imply any immediate change in extension of the company's activities. The company now operates a railway line from the mill at Iroquois Falls, northwards to the Canadian National Railways line, east of Cochrane. The railway is used for hauling wood to the Abitibi properties.

Abitibi's annual statement for 1923 will be issued about the 10th of March, and will indicate, it is anticipated, a very satisfactory earnings record. Profits are likely to show some increase, for the corporation produced 4,000 tons more newsprint in 1923 than in 1922, its total production being around 145,000 tons. There will not be the same important deductions for depreciation of the "wood pile" that characterized the 1921 and 1922 reports.

It is fully expected that Abitibi will increase its production this year by more than the 4,000 tons that was the increase in 1923. New records of daily production are being set up from week to week, and there have been many days when the mill has gone over the 500-ton mark. The mill was originally built with a rated capacity of 425 tons a day, but bids fair to establish a normal output of 500 tons a day..

Iron Ore Deposits and Formations in Canada



It has been repeatedly asserted that Canada has no iron ore. The above map is a direct answer. The fact is that Canada has innumerable deposits of iron ore scattered from coast to coast, but Canada is not developing these deposits; instead her supply of ore is imported and her steel industry labors along under this handicap while millions of dollars' worth of steel products are yearly imported.

In this issue THE FINANCIAL POST presents the case for iron ore development, the immediate issue being the iron ore bounty which is favored by the Ontario government provided the federal government will co-operate.

ALBERTA MINES WILL FIGHT FOR WAR-TIME WAGE

Operators Think Public Should Be Considered

From Our Own Correspondent.

CALGARY.—The decks are now being cleared for the forthcoming fight between coal operators of Alberta and miners, and while at the present time both sides are lying low and saying nothing as to what will be the probable outcome of the joint conference on March 4, it is easily seen that they are quietly taking off their coats for the fray.

The result of the Jacksonville, Fla., scale committee convention is something akin to holding a red rag to a bull so far as Alberta operators are concerned. The demand formulated at that convention was for a three-year contract at the present scale of wages, based on the peak war figures.

The position the operators take is that the public have every reason to expect some consideration when the new agreement is negotiated, but it is a singular thing that during the past few years, even when strikes have resulted over the negotiations between the operators and miners, the public has simply sat back and blackguarded both sides without attempting to go into the slightest detail as to why the price of coal should be so high when Calgary is virtually standing on one of the largest coal fields in the world, but has to pay through the nose for its fuel supply, and outside points in proportion.

A comparison of the wages paid in Alberta compared to Nova Scotia is certainly sufficient to arouse public opinion. Although the wages in the latter coal fields have recently been increased they are a long way under those of Alberta notwithstanding that in annual working time and living costs there is very little difference between the two provinces. For instance contract miners in Alberta receive $2.65 a day more than in the Nova Scotia field, hand-miners $2.35 more, hoisting engineers $2.79, drivers $3.31, bratticemen $3.45, pumpmen $2.54, underground laborers $3.24, surface laborers $3.08, machinists $3.54, carpenters $3.89, and blacksmiths $3.79 more per day.

In face of all this, and particularly in view of the fact that coal mining generally in Alberta under present conditions is not a profitable financial investment, one need not be a prophet to forecast that there is every likelihood of the greatest struggle ever known in the coal-mining industry of the province, commencing on April 1, when the present agreement between the operators and miners expires.

FEDERAL AID FOR BOUNTY FAVORED

Ottawa May Aid—Thinks Ontario Was Passing Buck, Though

From Our Own Correspondent.

OTTAWA.—The skilful piece of "buck-passing" by which the Ontario Government put up to the Dominion the question of whether there is to be a bounty on iron ore production is much admired here by those who follow the game. Hon. Mr. Price's announcement was to the effect that the Ontario Government would grant a bounty, provided that the Dominion did the same. This means that if the bounty does not materialize Ottawa will get the blame.

It looks as though the Government might not be averse to granting the bounty, precedents for its action being found in the bounties granted last year for the production of copper and hemp. Opposition from the Progressives would be expected, but as the Conservatives would not oppose it, it might reasonably be expected to go through.

Some of the Liberal members from Ontario profess to be very thankful for this opportunity of showing that the Government has the interests of that province at heart.

GOVERNMENT ASKED TO SUPPRESS I.W.W.

Nelson Board of Trade Thinks That Agitators From States Should be Dealt With

From Our Own Correspondent.

NELSON.—Resentment that the I. W. W. can come into Canada; set itself up as a labor body, and seriously tie up industry, as it has in the strike in the lumber camps of the Cranbrook district, continues to grow.

Following the recent action of the Associated Boards of Trade of Eastern British Columbia in calling on both the Dominion and provincial government to see that this organization is in no way recognized in Canada, and that the agitators from the United States be dealt with, the Nelson board of trade has adopted a resolution which is to be forwarded to the coming convention of the associated boards that the Dominion government take steps to have the I. W. W. declared an illegal organization in Canada, and to have its officers barred from entering this country.

MANITOBA'S BUTTER PRODUCTION

WINNIPEG.—Out of a total production of 10,730,150 pounds of creamery butter in 1923, Manitoba exported 3,863,264 pounds in 180 carloads, valued at $1,513,169. Shipments were made to the United Kingdom, New York, Chicago and Montreal.

Forcing St. Lawrence Development

THE FINANCIAL POST understands that important developments may be expected in the very near future in the proposed power and deep navigation features on the St. Lawrence River. The Government has to take into account the attitude of certain influences in Quebec that oppose development just now; but its hand is being forced because of the fact that it realizes that it must do something to win favor in Ontario. The advice it gets from its Ontario advisees is that to back the St. Lawrence development scheme would be its strongest card in this province. Politically the premier is put in the position of having to weigh Quebec against Ontario.

It has also become apparent that the Government, if it does anything in this matter, will have to go the whole way, that is, endorse the navigation as well as the power feature. This is the information that comes from across the boundary line. So it will readily be realized how the hand of the Government is being forced even from the United States.

Action will probably come quickly in proportion as a general election is hastened or delayed. The Government, when it goes to the country, will endeavor to have something in its hand that will appeal strongly to Ontario, for it is by no means sure what support it will get in the West.

PROGRESSIVES IN HOUSE HAVE THE WHIP HAND

They Can Now Pretty Well Decide Election Issue

From Our Own Correspondent.

OTTAWA.—The amount of business and the political feeling that is being developed makes a parliamentary session lasting until well into July quite probable. Only the summer heat will cut it shorter. If the position of the government becomes noticeably weaker, as the session progresses, then the session will grow in length. It certainly will do so if a general election becomes inevitable.

It may be taken for granted that there will be a lively time. Beyond doubt, the Opposition will, from the drop of the hat, put up a strong attack. If they succeed in making the position of one or two of the ministers untenable, as is said they may then the government's position will be much weakened. It will, however, take much of this kind of work to bring about a ministerial defeat, for if the government can induce a large number of Progressives to vote with them on the big questions, much of the criticism will go for nought.

Whether the government stands or falls, whether there will be a general election this year or not, will depend on the Progressives. Never was the house so completely in the control of a third party as it is to-day. This being so, they will naturally want their price for support. That means they will want substantial reductions in the tariff, and it is difficult to see how the government can do otherwise than come through.

Tariff An Issue

Representatives of the industrial interests who come to the capital realize that they have a big tariff reduction fight on their hands. Just now it looks as though this would be the one big issue of the session. The reason is that the average member is more at home on this than on any other subject.

The government is not eager for an early election, nor are the Progressives, and, in addition, some Conservatives think that their own chances would be improved by delay; but the political currents are running so strongly that the course of events may get beyond the control of the political leaders. While the government is not courting an election, it is preparing for such an eventuality, and is unlikely to be taken by surprise.

The government's legislative programme includes changes in the sales tax, tariff reductions, amendments to the inland water rates act, agricultural credits, a three years' programme of branch railway construction, redistribution, superannuation of members of the civil service, amendments to the Grain Act, and probably some changes in the Bank Act.

Alberta's Crops Have Increased Twenty Fold

From Our Own Correspondent.

CALGARY.—Although it is only eighteen years ago that Alberta became a province, its population has increased four-fold, while the grain yield has increased twenty-fold. Even at the present low prices the total agricultural products of Alberta in 1923 were worth $223,000,000.

IS THE AMENDED BANK ACT TO BE GIVEN A CHANCE?

Government Willing But Public Opinion May Force Issue

THE NEW SAFEGUARDS

Audit by Two Independent Auditors and Reports to Directors Would Have Prevented Failures

OTTAWA.—The announcement of the appointment by the government of a royal commission of inquiry into the affairs of the Home Bank is no doubt intended to have the effect of removing that matter from the controversies of the present session. However, it is doubtful if this will satisfy those members who have been loading themselves up with ammunition to direct at the government in regard to the Bank Act, or whether they will be content to postpone their various amendments and suggestions until after the commission has made its report.

It becomes a question whether the government will have its way in controlling the House proceedings, or whether public opinion, as represented by the members, will force the issue.

It is expected that the government will take the attitude that, as important amendments were made to the Bank Act at the last session of parliament, there should be a reasonable opportunity offered to see how these changes will work out. Bankers believe that these amendments were of such a nature as to prevent a repetition of anything like the Home Bank and Merchants' Bank affairs. Mr. Fielding is known to have taken this attitude and to have been against anything like a government inspection which would have the effect of holding the government responsible for the safety of the banks. Mr. Robb will probably take a similar stand—at least so far as a detailed government inspection is concerned. As to some measure of government supervision of head offices, the banks are not very strongly opposed; in fact, some of the leading bankers are on record as even favoring such a step, if it would have the effect of restoring public confidence without involving too great interference.

There is a strong case for the contention that the Bank Act as amended should be given a fair trial before other changes are made—whatever public opinion may be on the matter.

The New Audit System

Under the old act there was only one auditor, not necessarily even a chartered accountant. Under the amended act, there must be two auditors, not members of the same firm. These auditors must be members in good standing, of an institute or association of accountants, each one of whom must have practised the profession of accountant for at least six

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UNION BANK OF CANADA

Dividend No. 148

NOTICE IS HEREBY GIVEN that a dividend at the rate of 8% per annum upon the Paid-up Capital Stock of the Union Bank of Canada has been declared for the current quarter, and that the same will be payable at its Banking House in the City of Winnipeg, and also at its branches, on and after Saturday, the 1st day of March, 1924, to shareholders of record at the close of business on the 14th day of February next.

The Transfer Books will be closed from the 15th to the 29th day of February, both days inclusive.

By order of the Board.
J. W. HAMILTON, General Manager.
Winnipeg, January 18th, 1924.

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They answer the questions of telephone customers about advertised bargains, and take orders.

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FRANK KENNEDY,
Manager

THE BELL TELEPHONE COMPANY OF CANADA

CANADA PERMANENT MORTGAGE CORPORATION

QUARTERLY DIVIDEND

NOTICE IS HEREBY GIVEN that a Dividend of three per cent. for the current quarter, being at the rate of
TWELVE PER CENT. PER ANNUM
on the paid-up Capital Stock of the Corporation, has been declared, and that the same will be payable
TUESDAY. THE FIRST DAY OF APRIL
next, to Shareholders of record at the close of business on the Fifteenth day of March.

By order of the Board.
Toronto, February 20th, 1924. WALTER F. WATKINS, Secretary.

CANADA EXPORTED 70,000 AUTOS DURING YEAR 1923

This Was One-third of Total Shipments From Continent

TO BRITISH EMPIRE

Canadian Motor Cars Are Sold Chiefly in Countries Where Preferential Tariff Applies

From Our Own Correspondent.

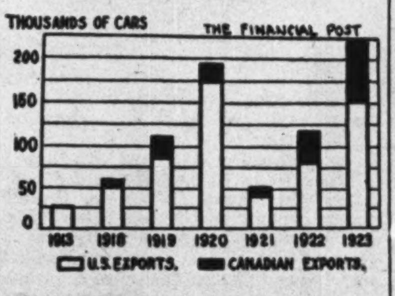
MONTREAL. — Canada exported 70,000 motor cars in 1923, almost double the total reached in any previous year, and almost half the total of car shipments from the United States. Total automobile shipments from the two countries reached 221,816 cars, which was an increase of 105,625 cars over the previous year's record.

Both production and exports of the United States and Canada kept pace proportionately in 1923, setting new high marks. Practically all the manufacturing plants in Canada are either branches of American factories or are controlled by American capital, their location in the Dominion enabling them to take advantage of the preferential tariff treatment in certain countries of the British Empire. A large part of the total output of the Canadian factories, consequently, is for the export trade—a fact which is responsible for the record shipments of 1923.

Mostly to British Countries

Most of the Canadian cars are shipped to countries within the British Empire. In other foreign markets; Mexico, Sweden, Spain, Cuba, Belgium, etc., the United States motor car manufacturer, or rather the American plants of the motor companies, have the edge and can outbid the Canadian factories. In some of the British countries cars from the United States, and from Canada as well, find ready sale. In Australia. which imports more motor cars than any other country in the world, United States manufacturers in 1923 sold 11,200 cars, and Canadian manufacturers 18,100 cars. In the United Kingdom, American makers sold 4,300 cars, and Canadian car makers 11,100 cars. These figures are for passenger cars, and there were also large shipments of motor trucks.

COMBINED EXPORTS OF AMERICAN AND CANADIAN MADE PASSENGER CARS AND TRUCKS



The growth of motor car shipments from Canada is shown in the following table:

Exports of passenger cars and trucks from Canada during the calendar years 1913, 1918-1923:

	Passenger cars		Trucks	
Year	No.	Value	No.	Value
1913	†	$ 3,395,382	x	x
1918	10,361	5,076,076	x	x
1919	19,597	11,580,260	3,352	$1,673,256
1920	18,070	13,576,179	4,942	3,059,056
1921	9,755	4,592,664	1,421	718,780
1922	35,394	21,059,574	2,564	1,094,519
1923	57,481	29,325,031	12,439	4,503,659

† Quantities not shown in 1913.
x Trucks not shown separately; figures included under passenger cars.

Where Our Cars Go

Where Canadian cars were sold during the calendar year 1923 is indicated here:

Leading markets for passenger cars and trucks exported from Canada during the calendar year 1923:

	Passenger cars		Trucks	
Destination	No.	Value	No.	Value
Australia	18,112	$7,036,671	7,213	$2,479,201
U. K.	11,080	7,576,662	2,081	917,562
N. Zeal.	8,662	4,136,398	1,189	409,804
Africa—				
B. S.	5,561	2,462,146	416	139,616
B. E.	304	116,570	136	45,164
B. W.	281	181,515	67	27,813
India	4,002	1,825,576	704	235,142
Argentina	1,869	1,429,630	—	—
Uruguay	205	181,287	—	—
D. E. Indies	1,772	726,062	30	9,835
Straits S.	1,232	463,155	158	51,302
Sweden	695	434,901	—	—
Ceylon	492	224,010	192	63,727
Netherlands	386	286,620	—	—
Spain	309	326,550	—	—
Japan	260	166,714	—	—
Belgium	194	151,659	—	—
China	186	142,728	—	—
U. S.	155	52,397	18	12,826
Mexico	142	157,260	—	—

Germany Big Buyer of Canadian Flour

OTTAWA.—Germany's purchases of foodstuffs from Canada are showing a remarkable growth. Out of a total of 1,052,259 barrels of wheat flour, valued at $5,325,537, exported from Canada during January to over fifty countries throughout the world, Germany was, next to the United Kingdom, the heaviest buyer. Germany took 177,572 barrels, valued at $869,879, while the purchases by the United Kingdom were a little over twice that amount, or 381,364 barrels, valued at $1,914,430. The total exports to other countries in the British Empire were 132,411 barrels, valued at $724,149.

According to Colonel Dennis, the head of the Colonization Department of the C.P.R., there are 63,000,000 acres of privately owned unoccupied land within fifteen miles of the railways in the West, of which 25,000,000 acres are suitable for immediate settlement.

Woollen Makers Have Case to Lay Before Gov't

The Canadian Woollen Manufacturers' tariff committee and selected members of the executive committee, in view of the tremendous imports in 1923 of woollen and knitted goods, are preparing a statement, showing the condition of the woollen and knitted mills in Canada, which they will place before the government at an early date with a view to having tariff adjustments made at the coming session of parliament. A strong delegation representing the industry in Canada will go to Ottawa shortly and place the case before the government.

FLOUR MARKET IN CHINA AND JAPAN

Now Canada's Best Customers Next to Great Britain and Belgium

From Our Own Correspondent.

OTTAWA.—China and Japan are becoming good customers for Canadian wheat and flour. During January, China bought 1,167,702 bushels of wheat and 54,205 barrels of flour; while Japan took 1,177,167 bushels of wheat and 6,263 barrels of flour. As a matter of fact, next to Great Britain and Belgium, these two countries were Canada's best customers for wheat during the month. This is a new development, and indicates a feature of foreign trade that has important possibilities.

More importance is attached to the increase in sales of wheat and flour to China than to Japan, for the former are considered a more normal development, while the latter's purchasers are attributed more to scarcity of food supplies following the earthquake of last September. Before the outbreak of the Great War the government of the day though it saw important possibilities for these exports through the turning of the Chinese and Japanese from a rice to a wheat diet, but it took some time to produce important evidences of such a change. Apparently, however, they are now becoming strong.

Germany continues to buy heavily of Canadian flour, exports thereto during January having been 177,572 barrels. Next to Britain, which took 381,364 barrels, Germany was Canada's best customer for flour during the month. Exports of flour to all countries during the 12 months ending January were 11,225,537 barrels, or 13,472,276 more than during the preceding period.

During the calendar year, 1923, Canadian mills produced 19,060,020 barrels of flour, or 1,786,734 more than in 1922, while exports were 11,198,635, or 1,713,910 greater.

N.B. BLUE SKY LAW RULED ULTRA VIRES

Appeal Court of Province Has Quashed Conviction of the Lower Courts

From Our Own Correspondent.

ST. JOHN.—The so-called blue sky law of New Brunswick has been declared ultra vires by the Supreme Court. Recently J. M. Queen, of St. John, was convicted of selling stock in defiance of the act. Mr. Queen had not secured the permission of the board to sell the stock. He instituted proceedings for an appeal. The appeal court quashed the lower court judgment.

The situation that has arisen is a very interesting one. The next move may be the appeal of the province from the verdict of the appeals court. The position the members of the Board of Public Utilities is a complex one inasmuch as they do not know whether to continue the business under the Sale of Securities Act or await further litigation.

The New Brunswick blue sky law was patterned in some respects after the Saskatchewan blue sky law, which was also declared ultra vires by the Saskatchewan appeal court.

IRON AND STEEL OUTPUT

The quantity of pig iron produced in Canada during the month of January advanced 7 per cent. over the December output of 59,622 tons to a total of 63,702 tons and represented a market increase over the outputs in January of the last three years.

The output of basic pig iron was 39,388 tons of which 1,625 tons was produced for sale, and the balance, 37,763 tons, together with foundry iron amounting to 14,466 tons and 9,848 tons of malleable iron, was for the further use of the reporting firms.

TARIFF RULINGS

Canadian and Foreign Decisions of Interest to Exporters and Importers

Ottawa—The importation of dogs from the continent of Europe is prohibited.

Denmark—Effective February 1, 1924, until January 31, 1925, a graduated sales tax of 15 per cent. to 30 per cent. of the value is levied in Denmark upon the sales of new cars (except omnibuses, trucks, and delivery automobiles). This tax does not supersede the horsepower tax, but is in addition thereto.

Germany—The restrictions on importation into Germany have been further relaxed from February 6, 1924. The commodities decontrolled by this decree are as follows in part;

Vegetable oils and greases; ceramic building materials, raw building and construction materials; mineral oils; cordage fibres; leather clothing and gloves; leather luggage, hand articles and harness; pig iron and ferrous alloys for machines and construction purposes; rolling mill products, including pipes; steam boilers, locomotives and certain railway equipment; blacksmiths' tools; agricultural machinery and implements, except tractor plows: nails, tacks, and chains; aluminum; fabricated zinc, tin, nickel, copper and brass, and manufactures of same; machinery, viz, textile, laundry, fire-fighting, brewing, milling, and refrigerating.

KNITTING AND WOOLLEN MILLS BEING HARD HIT

Manufacturers Present a Strong Case at Ottawa

OTTAWA.—Conditions in the woollen and knitting mills of Canada, the causes of these conditions, and the tariff reform to be asked at this session of Parliament, is contained in a statement made to the Hon. Mr. Robb, Finance Minister, on behalf of the Canadian Woollen Manufacturers' Association by the president and the chairman of the tariff committee:

Twenty mills are closed since January 1, 1923, out of 1924 woollen and knitting mills on which we have reports. Idle machinery to-day in the 124 mills reporting is as follows:—Looms, 40 per cent.; Cards, 33 per cent.; Mules, 24 per cent.; Dyeing and Finishing, 28 per cent.; Knitting, 41 per cent.; Sewing, 44 per cent., or an average of over 40 per cent. of the machinery idle. There is considerable reduction of operating machinery over 1923, which was an extremely unsatisfactory year for the mills. To-day only 10,799 hands are employed in the mills reporting, while if these mills were working full time, they would employ 23,055 hands.

Out of the mills reporting, only 58 could report on the number of their employees who have gone to the United States since January 1st, 1923, and these did not give all those who actually left the country, but only those highly skilled workers they actually know about. The figures for the 58 mills are: Employed when mills are on full time, 11,244; employed to-day, 7,376; known to have left for the United States, 776. This represents over 10 per cent. of those now employed in these mills.

While these figures reflect the serious condition in Canadian mills during 1923, and the more serious situation at the present time, we find that over $40,000,000 worth of woollen and knitted goods were shipped to Canada from abroad during 1923, of which over $30,000,000 worth were from Great Britain. On careful analysis of these imports, we find that there is the machinery and technical ability in Canada to manufacture from 80 to 90 per cent. of these imports, and if the bulk of the imports had been manufactured in Canada, it would have employed from 17,000 to 20,000 additional hands throughout the year.

It was submitted that the woollen and knitting industry, which is indigenous to Canada, and of which 94.4 per cent. of the industrial capital employed is owned by Canadians, should be safeguarded by tariff adjustments, otherwise capital employed would be dissipated and the employees out of work or largely transplanted to the United States. In the present unsettled political and economic condition of European countries it may possibly be a fatal policy to rely upon an uninterrupted supply of necessities of life, such as woollen and knitted goods to Canada, from European sources, including Great Britain.

We asked that, in the coming budget, adjustments of the tariff and regulations regarding the tariff be made to safeguard this industry which is necessary to the full development of Canada along national lines. With this end in view, we submitted certain points for consideration:

Duties on goods from Great Britain were lowered in 1922 and again in 1923. Invoices for duty purposes are valued at the exchange value of sterling on the invoice date, instead of at par value, thus lowering the actual amount of the duty as provided by the tariff.

There is a large "invisible bounty" on all exports of goods from Great Britain to Canada owing to the purchasing power parity of the British pound to the Canadian dollar, and the rate of exchange. This amounts to practically the difference between the par value and the exchange value of sterling. Duties levied on goods from Great Britain imported into Canada are diminished by this amount. There are no tariff regulations compensating for this "invisible bounty." It is a factor in addition to other advantage for producers abroad, such as lower wages, overhead, etc.

Goods partially manufactured in continental countries by much cheaper labor than can be had in England, may be shipped into Canada under the British preferential rate. As an example, goods made in Great Britain can be sent to France to be dyed and finished. In this connection, we would point out that Australia, New Zealand, the Union of South Africa and the Bahamas have the following clauses in their regulations, which prohibits such shipments to these countries under their British preferential tariffs:

"In the case of goods which have at some stage entered into the commerce of or undergone process of manufacture in a foreign country, only that labor and material which is expended on or added to the goods after their return to the United Kingdom shall be regarded as the produce or manufacture of the United Kingdom in calculating the proportion of United Kingdom labor and material in the factory or works cost of the finished article."

While we dealt in detail with the question of imports from Great Britain, many of the same points were applied to continental countries, especially France, which owing to the fact that the invoices are valued at the exchange rates and the "purchasing power parity" of the franc is much higher than the exchange value, is rapidly increasing the imports into Canada, to the detriment of home industries.

Comparative Wages Paid

Occupation	Brit. rate sterling s.	d.	Brit. rate ex. value	Can. rate
Winders	26	11	$ 5.92	$13-15
Twisters	28	10	6.34	13-15
Spinners	26	8	5.77	13-15
Reelers	29	8	6.52	17-20
Doffers	23	9	5.22	13-15
Overlookers	77	5	17.03	35-60
Warehousemen	54	10	12.06	19-22
Blenders, carbonizers, laborers	54	10	12.06	18-20
Male help in grey room, stockroom & pack. dept.	55	11	12.30	19-22
Firemen & gr.	63	2	13.89	30

British rate exchange value taken as at end of January.

In the circumstances, we believe it to be in the national interest to restore the tariff on woollen and knitted goods to at least the rates effective under the Fielding tariff of 1906-7, and we are soliciting the Government to amend the tariff law accordingly.

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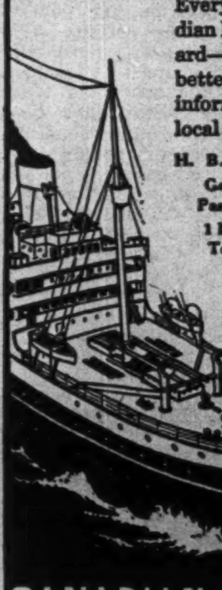

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VANCOUVER HAS BECOME PORT OF WORLD SHIPPING

Cargoes Being Sent to Four Corners of Globe

WHEAT MOVEMENT

Heavy Shipments During the Months When Eastern Route by Way of the Lakes is Closed

Special Correspondent.

VANCOUVER.—Vancouver as a port of world commerce has arrived. During February, vessels were chartered to clear from there fore the following ports:

United Kingdom—Liverpool. London, Hull, Avonmouth, Glasgow, Manchester and Belfast. France—Havre and Bourdeaux. Germany—Hamburg. Holland—Rotterdam. Belgium—Antwerp. Denmark—Copenhagen. Norway—Bergen, Christiania. Sweden—Stockholm. Portugal—Lisbon. United States, Atlantic Seaboard—Boston, Baltimore and New York. Latin America (Atlantic side)—Argentina, Buenos Aires; Brazil, Bahia; Colombia, Buenaventura; Cuba, Havana; Porto Rico, San Juan; Martinique, Fort de France. Latin America (Pacific side)—Chile, Antofagasta, Valparaiso; Ecuador, Esmeraldas; Peru, Callao, Salaverry; Panama, Balboa; Guatamela, Champerico; Nicaragua, Corinto; Salvador, Acajutla; Mexico, Acapulco. Pacific Islands — Australia — Adelaide, Melbourne, Sidney; New Zealand—Auckland, Dunedin, Lyttleton, Napier, Wellington; Hawaii, Honolulu; Fiji, Suva; Phillipines—Manilla, Cebu, Iloilo. Eastern Pacific Mainland—China—Hong Kong, Shanghai, Dairen, Tsingtao, Foochow; Japan—Kobe, Yokahama, Nagasaki, Moji, Nagoya Osaka; Straits Settlements, Singapore.

The cargoes included lumber shingles, woodpulp, canned fish, fish frozen, salt and cured; lead and spelter, apples, flour and wheat. Of these commodities the largest tonnage is supplied by lumber, flour and wheat which also showed the greatest increases in the past three years. Lumber shipments more than doubled in volume from 1921 to 1923, but flour shipments increased eight times, and wheat shipments almost twenty times; to be exact, from 1 million bushels in 1921 to 24½ million bushels in 1923. Its volume of products of the forest, the sea, the mine, and the orchard, has enabled Vancouver to enter in the race as a world port, but obviously, it is the wheat of the prairies by which it must win.

What part wheat plays in providing and increasing traffic for the port may be gathered from the fact that in the period from September 1, 1923, to January 31, 1924, one hundred and forty vessels cleared with full or partial cargoes of wheat. Of this number, ninety-four sailed before December 31, and forty-six in January. Of the ninety-four carrying wheat up to December 31, twenty-seven came without cargo, that, is "in ballast," for the purpose of loading with wheat. This establishes the fact that wheat is a sufficiently attractive cargo to bring vessels to the port on its account alone, at rates governed by those paid on other trade routes, and by the law of supply and demand throughout the world. Vancouver is thus established as a world port.

Ocean rates from Vancouver to the United Kingdom for the past three years have ranged from thirty shillings to thirty-five shillings per long ton of 2,240 pounds, equal to 37-1/3 bushels of wheat. Sometimes a "distress" rate is quoted at a lower figure. There is a surcharge up to three shillings a ton on wheat for some of the Continental European ports, such as those of Scandinavia, Italy and Greece. At the rate of exchange, thirty shillings per long ton equals 17-2/3 cents per bushel of wheat. Thirty-two and a half shillings equals 19 cents; thirty-five shillings, 20-2/3 cents, and thirty-eight shillings, 22-1/3 cents, per bushel of wheat.

Big Wheat Movement

Between September 1, 1923, and January 31, 1924, there was shipped from the port of Vancouver 21,608,000 bushels of wheat. As the port has only one grain elevator in operation its capacity was the limit of what the port could ship of grain in bulk. As a result, cars of grain were only allowed to come forward from the prairies as they could be unloaded. This made for delay, and uncertainty, and undoubtedly seriously restricted the volume of grain passing through the port.

Notwithstanding this condition, the advance booking for February shipment amounted to 11,662,000 bushels. On February 1 there was already booked in advance for shipment during March 6,421,000 bushels, and on the same date, for April shipment, 2,458,000 bushels. The total amount actually shipped up to January 31, and under contract on February 1 to be shipped by April 30, is over forty-two million bushels. Beyond doubt this amount will be increased by additional bookings during March and April, that will bring the total shipments between September 1, 1923, and April 30, 1924, up to fifty million bushels.

It is worthy of mention that some years ago the Manitoba Free Press in a statement covering ten years, from 1902 to 1912, placed the total yield of wheat in the Provinces of Manitoba, Saskatchewan and Alberta at fifty-two million bushels in the year 1903. The Canada Year Book gives the total wheat export of Canada in 1911 as forty-five and a half million bushels.

Another elevator of one and a half million bushels' capacity is now in process of construction. It will be in action when the next crop season opens. But still more elevator accommodation will be needed, and no doubt will be provided in due course.

A notable feature of this season's shipments by way of Vancouver is the increase in volume during the months when the eastern route by way of the lakes is closed. October shipments were three and a quarter bushels; November, four millions. In December, the first month of closed navigation on the lakes, six and three-quarter million bushels were shipped; in January, eight and a half millions were shipped, and in February, thirteen and a quarter millions were contracted for. For March shipment on February 1, nearly eight million bushels had already been contracted for, while for April shipments there was already contracted for on February 1 two and a half million bushels, as compared with total shipments of three and a quarter millions in October.

Winter Shipments

The great increase in winter shipments is evidence of the advantage of being able to use an open port during these months on favorable terms. It relieves congestion on the eastern route, and thereby tends to keep down rates, enables actual delivery to directly follow export sales, and thereby unloads the surplus crop as opportunity offers, and clears the market. It saves storage, shrinkage and interest charges, on grain held back from the consumers' market for four months by the closed navigation of the eastern route.

Another important feature is the amount of wheat shipped to the Orient. From September 1 to January 31, five and a half million bushels were shipped to Oriental ports, and five and a quarter millions contracted for shipment in February. Relief of the European market of even ten million bushels, especially at the season where, without the western outlet there would be practically no relief, cannot but have an appreciably favorable effect on the market conditions of the coming summer.

MENNONITE LAND CASE SETTLED IN COURT OF APPEAL

Great West Loan and the Saskatchewan Mortgage Involved

From Our Own Correspondent.

REGINA.—A case of the very greatest importance to the Saskatchewan Mortgage and Trust Corporation, the Great West Permanent Loan Company, and the Mennonite Land Sales Company, which has been before the Saskatchewan courts for nearly two years, is now ended as far as these courts are concerned, the Saskatchewan court of appeal giving a judgment on Monday of this week restraining the registration of mortgages of a total value of $221,000 held by the Great West Permanent Loan Company against land in the old Mennonite colony south of Swift Current, and dismissing the application of the Mennonite Land Sales Company to prevent cancellation of its agreement with the colony trustees.

The action arose out of the attempt of the Mennonite colony to sell its lands totalling over one hundred thousand acres prior to the anticipated departure of the Mennonites for Mexico where a large number emigrated in 1920, 1921, and in 1922. By an agreement, dated November 27, 1920, the Mennonites agreed to sell to John Murphy, of Regina, 105,789 acres, including buildings, livestock, and farm implements, for a price, under the first agreement, of $4,813,390. The land was to be transferred in parcels of 5,120 acres, provided sufficient had been paid down to cover the purchase of such a parcel, and leave a balance of $25,000 over as reserve. The agreement was later on changed, the price of the land and improvements dropped from $45.50 an acre to $44 an acre on terms of $5,000 cash, $1,000,000 on deposit with the trustee of at least 90 per cent. of the lands to be purchased, and $1,000,000 the following November, April and July. The Saskatchewan Mortgage and Trust Corporation was appointed trustee under this agreement.

Mr. Murphy assigned his agreement for sale to the Mennonite Land Sales Company. Under the trust agreement of May, 12, 1921, the Mennonites deposited with the trustee transfers covering 97,000 acres and bills of sale which were not to be parted with by the trustee to the land sales company until the latter had paid over a million dollars in cash.

A loan of $221,750 was negotiated by the land sales company through the Great West Permanent Loan Company on a tract of 10,240 acres, secured by 33 mortgages. The loan company wanted its name on the transfers and mortgages, and the sum of $10,000 was paid the Imperial Canadian Trust Company for securing the money, the loan company paying the estimated balance of the loan amounting to $194,472 to the Mennonite Land Sales Company, the land sales company paying the Saskatchewan Mortgage and Trust Corporation $28,410 as the balance due on the two parcels of land, plus reserve fund $25,000, less amounts used to pay off prior incumbrances and expenses.

An injunction restraining the registration of the documents was served on the registrar of land titles at Swift Current, the action partly tried in October, 1921, but not proceeded with finally until the following June In the King's Bench courts the Mennonites were successful in the suit against several parties to prevent conveyance of parcels of land, but were unsuccessful against the Great West Permanent Loan Company, and their claim that the Saskatchewan Mortgage and Trust Corporation Limited, had been guilty of a breach of trust, was upheld by Mr. Justice McDonald.

MINTO, N.S., HAS NOT HAD MINERS' STRIKE IN 10 YRS.

Men Overthrew U.M.W. and Since Negotiated Their Own Agreements

From Our Own Correspondent.

ST. JOHN.—While all other soft coal mining areas in the Maritime provinces have been adversely affected for the past three years by the intermittent strikes, communistic disturbances, sabotage, riots, etc., the Minto area has been singularly free from trouble. There has not been a strike in the Minto bituminous district in ten years. Not since the miners overthrew the United Mine Workers and negotiated their own wage and working agreements with the operators. The executive of the U.M.W. for the Maritime provinces district had ordered a strike. The miners refused to heed the order and remained at work.

Since the mines in the Cape Breton, Stellarton and Springhill areas have been the scenes of frequent strikes, starting with the introduction of communism in the ranks of the U.M.W. for the district, the mines in the Minto area have been operating steadily. And in some instances the pits have been operated at night, in order to cope with the deluge of orders. The Canadian Pacific Railway secures much of its coal from the Minto section, in recent years, and maintains a financial interest in some of the larger collieries.

The Minto Coal Company is operating its mines to capacity. The so-called C.P.R. mines in South Minto are expected to be abandoned in a few years. To meet this emergency, pits have been opened in what is known as the northern area, or North Minto. A railroad line has been built to North Minto and hundreds of miners' cottages have been removed on flat cars from South Minto to North Minto. Stores and halls have also been built, so that what was one year ago a barren waste is now a thriving settlement. There is said to be an apparently inexhaustible supply at coal at North Minto and of a better grade than that mined at South Minto.

A new field has now been opened up to the Minto coal, by the experiments conducted in the plant of the Hamilton By-Products Company at Hamilton.

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To Operate Canadian Business Separately

The big expansion in the Canadian business of the Metropolitan Life Insurance Company has made it advisable to establish the business in this country on an independent basis. The business, which has formerly been conducted through the New York headquarters, will be strictly Canadian after March 1, with the general office at Ottawa. After that date, the Canadian office will issue policies, pay its claims, and generally manage the company's business east of the Rocky Mountains.

A. F. C. Fiske has been appointed a third vice-president, and will have charge of the Canadian business. Other appointments made include James B. Woodcok, formerly supervisor of Canadian territory, as superintendent of agencies west of Quebec. Dr. John R. Coolidge of Newark will head the Canadian medical staff.

It is said that the company had 1,921,652 policies outstanding in Canada at the end of 1932.

New Issue

$8,000,000
Montreal Tramways & Power Company
LIMITED

Five-Year 6% Collateral Trust Bonds

The pledged collateral of Montreal Tramways Company will produce revenue substantially in excess of the amount required to pay interest on these Bonds. Such revenue is assured to the Montreal Tramways Company by a contract between Montreal Tramways Company and the City of Montreal, ratified by the Legislature of the Province of Quebec, which provides for the adjustment of the tariffs of fares to produce such revenue.

Dated March 1, 1924 Due March 1, 1929

Principal and semi-annual interest April 1 and October 1, payable in Canadian gold coin at the Bank of Montreal in Montreal, Toronto and Quebec, or at the Agency of the Bank of Montreal in New York, in United States gold coin, at the option of the holder. The first coupon is payable October 1, 1924, for the seven month period. Coupon bonds in denominations of $1,000, $500, and $100, registerable as to principal only. Subject to redemption prior to maturity, in whole or in part, at the option of the Company on 30 days' notice at 101 and accrued interest in Canadian or United States gold coin.

TRUSTEE: THE ROYAL TRUST COMPANY

For information concerning these Bonds and the Collateral by which they are secured, we refer to letters to us of Mr. W. C. Finley, President of Montreal Tramways & Power Co. Ltd., and of Mr. E. A. Robert, President of Montreal Tramways Company, from which Mr. Finley summarizes as follows:

The Montreal Tramways & Power Co. Ltd., through stock ownership controls Montreal Tramways Company which owns and operates under a favorable service-at-cost franchise the Street Railway System of Montreal and Suburbs, serving, without competition, a growing population of over 900,000.

The issue of the above $8,000,000 Five-Year 6% Collateral Trust Bonds will be secured by the pledge with the Trustee of $7,000,000 Montreal Tramways 5% Perpetual Mortgage Debentures and (through pledge of another issue of bonds of the Company) by $2,100,000 par value Capital Stock, being the majority of the outstanding Stock of Montreal Tramways Co., on which dividends are being paid at the rate of 10%.

Under the terms of the contract between Montreal Tramways Company and the City of Montreal, which runs until 1953, the Montreal Tramways Commission, created for this purpose by an Act of the Legislature of the Province of Quebec, is obliged to adjust fares to provide the Montreal Tramways Company with sufficient revenue to pay all operating expenses and maintenance and renewal fund payments and an annual return to the Company of at least 6% on:

(1) The capital value of the Company's property, as fixed through the franchise contract:
(2) Such additional capital expenditure as may be made from time to time.

The amount of revenue thus provided under the contract is more than sufficient to pay the 5% interest on Montreal Tramways 5% Debentures and 10% dividends on Montreal Tramways Stock, which are hypothecated as collateral for the above Tramways & Power Five Year 6% Bonds.

The contract, therefore, assures to the Company a sufficient revenue to pay interest on these Bonds.

The City of Montreal is directly interested in the prosperity of the Montreal Tramways Company, inasmuch as the terms of the franchise contract provide that the Company's right to receive its return on its capital value has priority over the City's right to receive $500,000 in annual rentals and a percentage of surplus earnings.

Further bonds may be issued under the trust indenture above referred to, only for the purpose of purchasing a majority of any further issues of Capital Stock of Montreal Tramways Company. The indenture provides that all such further issues of Capital Stock can be made only under restrictions satisfactory to the Bankers underwriting the above issue, and any such shares, purchased with the proceeds of the Bonds, must be pledged under the indenture.

These Bonds are offered when, as and if issued and received by us, and subject to the approval of all legal details by Messrs. Lafleur MacDougall, MacFarlane & Barclay, and Messrs. Beique & Beique. It is expected that The Royal Trust Company's interim certificates will be ready for delivery on or about March 1st, 1924.

We Recommend these Bonds for Investment

PRICE: 99¼ and interest to yield 6⅛%

Montreal Tramways & Power 6½% Bonds Maturing March 1, will be accepted in payment for allotted bonds of this issue at 100 and interest plus current premium on U.S. funds.

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We invite correspondence

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News and Views for Investors

BELL TELEPHONE

Bell Telephone plans to add 250,000 customers during the next 5 years or so at the rate of 50,000 new installations yearly. In Toronto alone 200,000 additional lines will be provided in addition to the 110,000 lines of the present equipment.

WRIGHT-HARGREAVES DIVIDEND

Wright-Hargreaves directors declared a 2½ per cent. dividend, payable to shareholders on April 1. The declaration of this dividend at the present time is somewhat of a surprise to the shareholders, who had looked for it at the beginning of the year.

DOMINION CANNERS

Dominion Canners are placing a great many more contracts for the raising of tomatoes this year than last year. The pack in Ontario last year was small owing to drought and the consumption has been much larger than anticipated owing to the demands from the West.

W. A. ROGERS PREF. ARREARS

Pres. S. J. Moore, in the annual report of W. A. Rogers, says the policy of clearing up the preferred arrears by payments at different intervals, likely quarterly, will be continued. These amount to 7 per cent. He hopes that the arrears will be wiped out by the end of the year.

SPANISH-ABITIBI MERGER

There has been some pretty intelligent buying of Abitibi and Spanish River shares of late which may mean that there is something in the merger talk of these two companies after all. Abitibi common continues strong and this week was the subject of heavy buying. The Spanish stocks, both preferred and common, have strengthened on substantial trading during the week.

CANADA FOUNDRY AND FORGINGS

No sudden or early revival in business is expected by Canada Foundry and Forgings. Keen competition, mostly from England and United States in 1923 held profits on the increased output of the company's plants below the average. The year ended with business largely on the basis of day-to-day requirements, and for the opening months of 1924 the same condition has prevailed.

CANADIAN LOCOMOTIVE

Canadian Locomotive Co. has just received an order for 15 mountain type passenger engines and 5 Santa Fe type freight engines. Work will start just as soon as preparations can be completed. This will keep the works busy till well after mid-summer and it is expected that by that time or before, other contracts will be on hand. The freight engines will be the largest and heaviest type ever built in Canada.

MOORE GROUP REPORTS

The strength which the Moore group has shown during the past couple of weeks of recessions has been justified by the annual reports of three of the group, issued this week. American Sales Book and W. A. Rogers each show an increase in earnings. The common of the former is standing at 44½ as compared with a year's high of 47 while the preferred is down one at 92. Rogers' common at 63 is two points below the year's high and the same with the preferred. F. N. Burt profits are slightly down though the year's volume is greater. This condition is due to the expansion program of the year when some new lines were launched. The cost of this was met out of current earnings. The common stock is now selling at 131½ as compared with a year's high of 137 in January. One sale of preferred has been made this year.

REPORTS NOT A SURE GUIDE

Annual reports are not always a sure guide in sizing up the position of a stock for market action. The most recent evidence of this was the case of F. N. Burt. Following the issuance of the report, which showed a lowering of profits as compared with 1922, there was considerable selling. In fact, there were four sellers to one buyer. Had the report been sized up on its own merits, without regard in this instance to the previous report, a different view was had. The decrease in the earnings was not due to lack of earnings, but rather to the expenditure of some $100,000 on research, which it is felt will return to the company ten fold profits.

BRAZILIAN

Brazilian, selling at fifty-three and a fraction this week, reached its highest level in 5 years. The improvement in Brazilian exchange was said to be the reason. London selling stopped the advance. The market is dominated at Montreal, but on Monday last London selling came onto the market and evidently Montreal did not care to combat it. A slight reaction followed. Evidently London decided that when the stock hit 53 on Saturday it was selling time, for the first thing on Monday morning London selling orders made their appearance. Net earnings for Brazilian in 1923 were 148,035,000 milreis. As it takes approximately 8 milreis to make a dollar at the present rate of exchange, the net earnings would be $18,500,000, which after paying the dividend on the $10,000,000 of 6 per cent. preferred stock shows earnings of $17,900,000 or approximately 18 per cent. on the common stock.

Public Utility Earnings

WINNIPEG ELECTRIC RAILWAY

December	1922	1923	Decrease
	$	$	$
Gross Earn..	524,338	510,796	13,542
Exp.	333,789	324,799	8,990
Net Earn. .	190,549	185,997	4,552
Agge. Gross 1 Jan to end December ..	5,395,217	5,322,365	72,852
Aggre. Net 1 Jan to end December ..	1,667,458	1,636,963	30,495

PORTO RICO RAILWAY

The Porto Rico Railways Company, Limited, comparative statement of earnings for December, 1923, folows:

	Dec. 1922	Dec. 1923	Increase
Gross	$113,002.22	$117,223.80	$ 4,221.58
Net	41,684.23	57,633.42	15,949.19
For Twelve Months			Decrease
Gr.	$1,322,653.67	$1,321,183.07	$ 1,470.60
Net	521,636.46	449,187.06	72,449.40

BRITISH COLUMBIA ELECTRIC

December	1922	1923	Increase
	$	$	$
Gross Earn..	923,922	965,146	41,224
Exp.	628,137	663,309	35,172
Net income .	2,95,785	301,837	6,052
Aggre. Gross 1 July to 31 December .	$5,190,572	$5,304,512	113,940
Aggre. Net 1 July to 31 December ..	1,532,575	1,578,689	46,114

ALABAMA POWER

The Alabama Power Company reports operating earnings for the month of January, as follows:

	1924	1923	Increase
Gross Inc.	$756,533	$532,145	$224,388
xOper. ex.	425,201	302,803	122,488
Net Inc.	$331,332	$229,342	$101,900
For 12 Months Ending January 31			
Gr. Inc.	$8,087,681	$5,850,205	$2,237,476
xOp. Ex.	4,400,618	3,090,031	1,310,587
Net Inc.	$3,687,063	$2,760,174	$ 926,889

x—Including Taxes.

Railway Earnings

CANADIAN PACIFIC RAILWAY

Week end:	1924	1923	Change
Feb. 21	$2,919,000	$2,506,000	+$413,000

CANADIAN NATIONAL RAILWAYS

Week end:	1924	1923	Change
Feb. 21	$4,181,048	$3,848,962	+$332,086
January	1924	1923	Change
	$	$	$
Gr. ern.	18,328,491	18,765,458	— 436,967
Op. exp.	17,837,070	19,362,197	—1,525,127
Net er.	491,421	(d.)596,739	+1,088,100

DEFINITE BREAK IN MARKET SEEMS TO HAVE ARRIVED

Speculators Being Advised to Move Cautiously on New Commitments

MONEY QUITE FREE

Because of This and Absence of Unfavorable News Good Stocks Should Stand Well

The market for the present is being dominated by annual reports, by no means a sure barometer. But aside from this the best opinion is that the cream has been taken off the market; that the Canadian lists have seen the top or close to it. Certainly it is a time for caution. A general survey of business conditions fails to reveal any real reason for expecting a further enhancement in values. For this reason the speculators are being advised by some of the leading houses to look before they buy and to by no means plunge. For the investor who is concerned with getting a good stock, yielding a good return, well secured, there are many sound issues to be bought at attractive prices. The investor must be prepared, however, to disregard the market. There is a possibility that they may go lower, but in the end the investment should prove quite profitable.

Everyone seems satisfied that New York has definitely broken. This is a big factor. The Canadian markets are not generally found following a first break in New York. On the second drop, when the conviction begins to sink in that the movement downward is a trend and not just a reaction, the influence is felt. There is much comment on the reason advanced for the New York break. It is no reason at all. It's an excuse. They advance the Tea-pot Dome scandal as the cause. It's a purely political question with absolutely no economic points and involving no companies.

On the other hand while the market may continue weak and spotty, there seems no real reason why good investment stocks should suffer. A break is generally due to adverse news or tight money. There has been neither good or bad news about this class of stocks of late and money is quite easy. There has been no great demand for industrial funds and so the banks have had no outlet for their funds. For this reason there seems no reason to expect any severe drop in these good issues or good bonds.

It is generally conceded that common shares break about ten points to one point drop in preferreds. The suggestion is being advanced that investors would do well, in face of the present market outlook to look to the preferreds. Later when the recession has about worn itself out they may look to the common stocks with not a little profit to themselves.

Generally there is a feeling that a good shaking out is coming sooner or later in the market. How soon it will come is a matter of guesswork.

Earnings of Stanfields Were Well Maintained

Profits of $133,612 for 1923 are shown in the annual report of Stanfields, Ltd., of Truro, N. S. This is practically the same as the figure of $133,105 for 1922, but a substantial increase over the $92,113 for 1921. The profits were sufficient to pay preferred dividends of 7 per cent. on the $250,000 of stock, 4 per cent. on the $500,000 of common stock, and $15,000 to the suspense account, and leave a balance of $81,112.

The balance sheet shows assets of $2,105,095. The reserve fund amounts to $560,236, and the surplus profits to $291,169.

Frontenac Breweries Profits Increased by $51,000

From Our Own Correspondent.

MONTREAL.—Frontenac Breweries began to make a real dent in its preferred dividends arrears last year. and, with greatly increased earnings was able to pay up all arrears to the first of October, 1917, and still carry forward a good surplus account.

Comparative earnings figures are as follows:

	1923	1922	1921
Profits	$315,608	$264,965	$231,196
Interest	63,950	71,674	94,586
Deprec.	17,156	87,868	86,942
Res. taxes, etc.	x54,103	2,131	22,729
Balance	$100,599	$103,292	$ 26,939
Pfd. divs.	84,000	26,250	.....
Balance	$ 16,599	$ 77,042	$ 26,939
Prev. bal.	300,221	233,178	217,330
P.&L. bal.	$316,820	$300,220	$244,269

x Includes $40,000 amortization bond discount.

It is planned to list Frontenac on the Montreal Stock Exchange shortly it is learned.

Short-Term Buyers In the Metal Market

Canadian metal markets are passing through a somewhat unusual experience with regard to purchases. Buyers are confining their takings to 30 to 60 day requirements and, with the first quarter of the year more than half gone, there is as yet little, if any, second quarter business on sellers' books, according to Canadian Machinery.

This attitude is expected to shortly give way before the necessity of purchasing for spring needs, when present prompt deliveries cannot be guaranteed. In a few cases prices are showing the effect of hesitancy in buying, but in the majority of commodities, firmness is shown.

Net Loss of $46,164 For Great West Loan

WINNIPEG.—The Great West Permanent Loan Company closed its books at the end of 1923 with a net loss for the year's operations of $46,164, it was reported at the annual meeting of the shareholders here. The operating loss was $63,658.43, from which was deducted a surplus of $17,494.27 carried over from the previous year. The directors expressed the belief that the present year would witness material improvement in all branches of their work, and they looked with confidence to the future. The present board of directors was reelected.

W. T. Alexander, president of the company, said there was $1,750,000 tied up in the Marlborough Hotel property at Winnipeg, and he believed the company would get its money out in a short time. Mortgages on Mennonites' lands at Swift Current, amounting to $279,617, were still in litigation, but Mr. Alexander felt confident of winning in a higher court.

MANY PROMOTIONS REJECTED BY BOARD

Sale of Shares Act in Alberta Does not Apply to Companies Under Federal Charter

From Our Own Correspondent.

REGINA.—The Sale of Shares Act has been in force since 1916. Of the 263 applications received by the board in 1923, 9 were withdrawn, and 83 were not proceeded with, the reason for this no doubt being that the applicants either could not, or were not disposed to put the board in possession of such information regarding their respective concerns as would warrant it in certifying that there was a fair prospect of an adequate return to investors in the shares, stocks, or bonds, which they proposed to offer for sale, as is required by sections 9 and 23 of the Act.

The board considers it advisable to again utter a warning to the public respecting its attitude toward persons soliciting subscriptions for the securities of companies which do not hold its certificate. Care also should be exercised in dealing with these representing themselves as agents of even companies which are certified, who should be required to exhibit licenses from the board authorizing them to act as such agents. A license to be valid must have been issued within the current year, and it must be borne in mind that all licenses, unless otherwise revoked, expire on the 1st of January of the year next following that in which they are issued.

CONSOLIDATED SMELTERS

Ore receipts at the Trail Smelter of the Consolidated Mining and Smelting Company from Feb. 8 to 14, amounted to 9,696 tons, and from Jan. 1 to Feb. 14, 56,339 tons.

BIRD & SON FACED KEEN COMPETITION

Result Was Some Reduction in Earnings—Better Prospects For Current Year

Although a larger volume of business was transacted during 1922, the net profits of Bird & Son, Ltd., of $61,718 compared with $82,479 in the previous year. Competition was very keen, necessitating closer prices, and a smaller margin of profit. The 7 per cent. dividend on the preferred stock took $28,000. The factory at Hamilton consumed a larger part of the product of the mill at Pont Range than during 1922.

The balance sheet shows current assets of $462,966, and current liabilities of only $94,605, the ratio being nearly five to one as compared with four to one at the end of the previous year. The total assets are valued at $1,059,055, of which $818,843 represents plant, land, equipment, etc., against which there is a reserve of $229,944 for depreciation. Current assets include inventories of raw materials, supplies finished and partly-finished stock at $224,897, with accounts and bills receivable of $212,266.

The directors report that both the company's plants are in excellent condition to handle the natural growth of business for some time to come without further capital expenditures. The 1924 outlook is stated to be such that improvement may be reasonably expected.

Mount Royal Hotel Applies for Listing

From Our Own Correspondent.

MONTREAL.—The application of the Mount Royal Hotel for the listing of its stocks is now before the Montreal Stock Exchange.

The application covers listing of both preferred and common shares.

HURON AND ERIE PAYS BONUS

Huron and Erie shareholders were informed by T. G. Meredith, K.C., president, at the annual meeting at London, that to celebrate the company's jubilee year they would be paid a bonus dividend of one-half per cent. in addition to the regular 7 per cent.

Town of Capreol

TENDERS WANTED

TENDERS will be received up to noon March 5th for the purchase of $3,750 six per cent., twenty year, Local Improvement instalment debentures, interest payable annually. Dated December 15th. First debenture payable December 15th, 1924.

A. BRUNDAGE, Treasurer.
Capreol, Ont.

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11 BROADWAY, NEW YORK

Montreal, Que., February 27th, 1924.
File 516.

TO CANADIAN MANUFACTURERS:

Japanese Orders for You

Gentlemen:

Japan is the BIG FOREIGN BUYER of the year, especially of building materials.

Canada needs more export trade, and many manufacturers would gladly handle Japanese orders but for the difficulties of satisfactory connections, transportation, finance, etc.

These difficulties have now been overcome.

A $300,000,000 Japanese International loan has been floated, and at the suggestion of the Canadian Pacific Railway, we have agreed to represent a prominent Far Eastern trading company (British) who have been established in China and Japan for the past forty years.

The big Japanese construction orders are yet to come—it is stated that there will be inexhaustible demands for the next ten years. Canada is well thought of, and Japan is now our third best customer.

If therefore you are interested in this exceptional opportunity to develop this market, please send us approximate terms, quantities and deliveries, f.o.b. cars your station, (pending official specifications) on asbestos, cement, iron and steel nails, rods, wire, pipes, rails (new and second hand), tool steel, building papers, light weight papers, flour, or any other commodity in which Japan might be interested.

Very truly yours,
GUY TOMBS LIMITED,

GT/ER. President.

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This Company aims so to conduct the operations given into its charge as to make them mutually profitable. It is a poor proposition which is not beneficial to both parties.

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STATEMENT SHOWS BROMPTON MAKING FORWARD STRIDES

Earned over Seven Per Cent. on Common for 1923

From Our Own Correspondent.

MONTREAL.—Brompton Pulp and Paper Company, one of the most stable of the Canadian paper companies in its earnings, produced an interesting annual report for 1923 this week, and showed earnings well above those in the previous year. The report is one of the most encouraging industrial statements that has appeared this year, just as Brompton's recovery from the pulp and paper readjustment period of a couple of years ago has been one of the most remarkable evidences of the fundamental strength of the industry in Canada.

Brompton's earnings on its common shares for 1923 work out at 7.1 per cent., which compares with 5 per cent for 1922. These figures, it might be noted, represent the actual improvement in the earning power of the common stock between the two years, for the 1922 percentage is worked out after making allowance for the $160,000 of preferred dividends that were earned in that year, and allowing for the statement covering fourteen months, but not paid until 1923, and the 1923 percentage is worked out after deducting 1923 dividends, but not the payments on acount of 1922 dividends.

Comparing the Earnings

Actual comparison of earnings and disbursements is shown here:

	1923	1922	1921
Earnings	$1,802,164	$1,607,212	$1,097,784
Deprec.	326,418	366,589	244,000
Bond Int.	303,134	362,783	200,774
Balance	$1,172,612	$ 877,840	$ 653,010
Pref. div.	177,500	x 17,500	155,000
Com. div.	......	......	385,000
Surplus for yr.	$995,112	$ 860,340	$ 113,010
Arrears on pfd. ..	160,000	......	......
Surplus fwd.	$ 835,112	$ 860,340	$ 113,010

x On Claremont preferred.

The transaction by which Brompton acquires the valuable Howard timber limits in Maine and Quebec is to be effected without any change in the balance sheet of the corporation, it is revealed by the report of the president, Hon. F. N. McCrea. No cash payment is being made by Bromtpon nor is any issue of securities being made. A subsidiary company is being formed which will be owned by Brompton, and which is issuing $850,000 of its bonds as payment for the leases. The bonds will be guaranteed by Brompton, and the shareholders at the annual state meeting will be asked to ratify a change in the bylaws to definitely permit such a guarantee. The figure of $850,000 now given as the amount of the bond issue that will buy these limits is lower than the original figure of $1,000,000 which was the approximate price mentioned in early discussions of this deal.

Brompton's working capital position is improved by close to a million dollars. In fact, practically all of the company's surplus earnings after payment of preferred stock dividends went to bolster up the working cash position, for only minor expenditures were made on plants and equipment during the year, and no common stock dividends were paid. Working capital is now well over the figure of $2,000,000 which is required by the trust deed of the 8 per cent. bonds issue to be maintained before preferred dividends can be paid. Working capital compares as follows:

	1923	1922	1921
Cur. asts.	$5,318,277	$5,221,652	$5,643,935
Cur. liab.	2,518,757	3,399,393	2,921,134
Wk.g cap.	$2,799,520	$1,822,259	$2,722,801

In their annual statement the shareholders are going to get an interesting idea of the diversity of the products of their company. The statement is printed on bond paper made at the Groveton's mills, and is being mailed in envelopes made of Brompton kraft paper. In addition the company makes newsprint paper The only paper used in the statement not made by Brompton is the paper on the postage stamps.

HATTIE MAKES DEAL

Hattie is reported to have made a deal for 700,000 treasury shares at an average price of 14½c. A further option of 500,000 shares is also reported. The stock has strengthened to around 9 cents on heavy trading.

STOCK MOVEMENTS OF THE WEEK

WEEK ENDING FEBRUARY 26

	Div. Rate	Yield Feb. 26	High For week	Low For week	Close Feb. 26	Close Feb. 19	Sales For week	Range High	1924 Low
Banks—									
Commerce	12	6.52	184	183	184	183	125	188	182
Dominion	12+1	6.96	186½	186½	186½	187	96	187	181
Imperial	12	6.78	177	177	177	176	16	177	173
Molsons	12	7.79	154	153½	154	153½	17	159½	153
Montreal	12	4.97	241	240	241	242	11	248	239
Nova Scotia	16	6.34	252	252	252	252	1	255	248
Royal	12	5.60	214	213½	213½	214	25	217	211
Standard	12	7.25	166	165½	166	165½	24	168	165
Toronto	12	6.78	176¾	176½	176¾	176	15	179	175½
Union	8	7.54	106½	106	106	108	9	109½	105
Paper—									
Abitibi, com. (no par value)	4	6.22	66¾	63¾	66¾	64	6102	69	60¾
Brompton Pulp (no par value)	....	....	42	40	41	41	630	42½	39
Laurentide	6	6.52	92¾	91	91½	91½	971	98½	89¾
Prov. Paper, com.	6	6.52	92	91	96	91	24	92	85
Prov. Paper, pref.	7	7.29	96	96	96	96	30	96	93
Smith, Howard, com.	6	9.23	67	65	65	66½	125	75	63
Spanish River, com.	7	6.48	109	106½	109	105¾	4760	114	99¾
Spanish River, pref.	7	6.14	114½	113	114½	111	899	119½	105½
St. Maurice Paper	6	6.00	100	100	100	100	638	113½	100
Wayagamack	....	....	42½	42	42	42	195	46	42
Steel and Steel Industries—									
B.E. Steel, com.	....	....	6	5	5¾	5	1250	6	3¾
B.E. Steel, 1st pref.	7	12.22	57½	53½	57½	54	1070	57½	53
B.E. Steel, 2nd pref.	....	....	17	15	16	15	2233	17	13
Can. Car and Foundry, com	....	....	42	38	42	39½	156	43	36½
Can. Car and Foundry, pref.	7	7.82	90	89	90	89½	860	90	84½
Can. Locomotive, pref.	7	7.91	88½	88½	88½	88½	15	88½	85
Dominion Coal	7	8.97	78	78	78	78	10	81	78
Dominion Iron, pref.	7	13.46	52	52	52	53	5	56	52
Dominion Bridge	4	5.12	79	71	75	71	892	80	65
Dom. Steel Corp., pref.	6	8.21	73	72	72¾	72	143	73	71¾
Steel of Canada, com	7	8.97	78½	76	77½	75	2415	78½	74½
Steel of Canada, pref.	7	6.78	103¾	103	103½	102	91	103¾	100
Milling—									
Canada Bread, com.	....	....	73½	72½	73½	72	410	74½	66
Canada Bread, pref.	7	7.17	97½	97½	97½	97½	53	97½	95
Lake of Woods, com.	12	6.85	175	170	175	177	60	177	167
Lake of Woods, pref.	7	5.88	119	119	119	120	45	120	117½
Maple Leaf, com.	....	....	69	65	65	66½	6	69	60
Maple Leaf, pref.	7	7.67	91½	91	91	91	46	95¾	87
Ogilvie Flour, pref.	7	5.92	120	118½	11.½	120	23	120	116
St. Law. Flour, com.	6	8.63	69½	69	69½	70	30	73	68½
St. Law., Flour, pref.	7	7.77	90	90	90	91½	55	91½	90
West. Can. Flour	8	7.76	105	100	100	105	17	105	100
Inter. Milling, pref.	7	7.42	95½	94½	94½	95½	70	96	94½
Utilities—									
Bell Telephone—Rights	....	....	4½	4½	4½	4½	1426	5	3½
Bell Telephone	8	6.22	129	128	128½	128	421	130½	125
Consumers' Gas	10	6.02	166½	165	165	166½	50	166½	159½
Mackay, com.	7	6.14	115½	114	114½	115	278	120½	0110½
Mackay, pref.	4	5.63	71	69	69¾	70¾	166	71½	66
Mexican Light, com.	....	....	18	18	18	....	15	18	18
Montreal L. H. & Pr. Cons.	7	4.45	157½	155	156	155¾	1317	161½	140½
Montreal Telegraph	8	8.00	52	50	50	52	142	52½	50
Ottawa L. H. & Pr.	6	7.31	85	82	85	82	26	86	81
Quebec Power, com.	....	....	71	70	70	71½	27	72½	65½
Quebec Power, pref.	7	7.60	92	92	91	93	24	93	90
Shawinigan	7	5.54	128	124½	126	128½	570	135½	118½
Transportation—									
Canadian Pacific Railway	10	6.55	152½	152	152½	152	65	154	149½
Canada Steamships, com.	....	....	11	11	11	11	10	14½	11
Canada Steamships, pref.	....	....	42½	42	42	42	241	46	42
Tractions—									
Barcelona	....	....	15½	15	15½	14½	80	16	14
Brazilian	4	7.51	53½	49	51½	40	49854	53½	41½
Detroit Un. Rly.	6	9.23	66	64	64	66½	577	72½	61
Duluth-Superior	....	....	33½	32½	33	32½	66	35	30¾
Illinois Traction, com.	$2.00	2.59	79	77	79	72½	35	79	60
Illinois Traction, pref.	6	6.61	90½	90½	90½	90½	20	91½	87
Montreal Trams	10	6.66	150	150	150	154	372	159	150
Porto Rico Rlys, com.	....	....	20	18	18	22	15	25	18
Toronto Railway	....	....	83½	82½	83½	82½	55	86½	80
Twin City, com.	6	9.23	65	64	64	65	262	69	63½
Winnipeg Elec., com.	....	....	28½	27½	28	28	320	30	27½
Winnipeg Elec., pref.	7	8.64	81½	81	81	83½	88	85	81
Textiles—									
Can. Converters	7	8.33	84	80½	84	84	120	90	80½
Can. Cottons, com.	8	7.96	100½	100½	100½	100½	20	111	100
Can. Cottons, pref.	6	6.66	90	90	90	89	1	91	89
Dom. Textile, com.	$4.00	6.40	62½	62	62	62½	395	66	62
Dom. Textile, pref.	7	6.54	107	107	107	107	12	109½	196½
Penmans, com.	8+2	6.07	165	160	160	164	321	165	150
General Industrials—									
American Salesbook, com.	$4.00	9.09	44½	44	44½	44	35	47	44
American Salesbook, pref.	7	7.60	92	92	92	93	30	95	91
Asbestos, com.	....	....	30	30	30	19	55	33½	25½
Asbestos, pref.	6	10.34	59½	58	58	59	45	62	57
Atlantic Sugar, com.	....	....	19½	18½	19	18	160	21½	16
Bird & Son, pref.	7	7.95	88	88	88	89	29	89	88
B. C. Fishing	....	....	15½	14½	15½	15¾	369	15½	14½
Burt, F. N., com.	10	7.60	132	131½	131½	133	20	137¾	131½
Canada Cement, com.	6	6.78	88¾	86	88	86	1219	88¾	84½
Canada Cement, pref.	7	6.60	106	104½	106	104	290	106	102½
Can. Gen. Elec., pref. (New)	....	....	54	53½	54	54	848	54	53¾
Canadian Salt	08	6.95	115	114½	114½	110	30	115	109
City Dairy, com.	10	5.55	181	180½	181	180	100	184¾	163
City Dairy, pref.	7	6.69	104¾	104½	104¾	104½	28	105	104
Dom. Canners, com.	....	....	33¾	30	34¾	32½	317	35¾	20½
Dom. Canners Pref.	7	7.76	89½	87	89	86	40	90	82
Dominion Glass, com.	7	6.48	108	107½	107½	107	155	109	101½
Dominion Stores, com.	$1.00	3.57	28	28	28	29	17	30	26½
Davies, Wm. (A)	....	....	14½	14½	14½	15	30	20	14½
Eastern Theatres, com.	....	....	14¾	14¾	14¾	13¾	12	14¾	12
Eastern Theatres, pref.	7	10.00	70	70	70	70	25	70	67
Goodyear Tire, pref.	7	8.75	80	79½	79½	80	82	81½	79
Lyall Construction	....	....	15	13	15	14½	71	16	13
Macdonald, A.	....	....	5	04½	4½	5	120	5	4½
National Breweries, com.	$4.00	7.54	53	51½	52½	53	1050	56½	51
National Breweries, pref.	7	7.25	97½	96½	96½	97½	72	97½	95
Pacific Burt, com.	6	5.94	101	101	101	99¾	69	101	98
Pacific Burt, pref.	7	6.66	105	105	105	106	46	106	102
Rogers, Wm. A., com.	....	....	63	63	63	63	5	70	45
Rogers, Wm. A., pref.	7	7.36	97	95	97	95	20	97	86
Russell Motor, com.	....	....	17½	17½	17½	17½	2	18	17½
Russell Motor, pref.	7	12.72	55	55	55	51½	15	55	48
Sherwin Williams, com.	6	5.63	106½	106½	106½	107	15	110	106½
Sterling Coal	4	9.41	43	42½	42½	43	61	43	41
Tuckett Tobacco, com.	4	6.45	62	62	62	63½	85	64½	57
Woods Manufacturing, com.	....	....	30	30	30	30	75	30	29
Trust and Loan—									
Canada Landed	10+1	6.62	83	83	83	84	8	86	82
Can. Permanent	12	6.48	185	185	185	184	3	185½	182

UNLISTED SECURITIES

	Bid	Asked		Bid	Asked
Alta. Pac. Grain, com.	97	101	Lambton Golf Club	400	450
Alta. Pac. Grain, pref.	87	90	Loew's Buffalo, pref.	51	54
Collingwood Ship., com	50	60	Loew's Buffalo, com.	1	1½
Can. Machinery, pref.	21	25	Loew's Hamilton, pref.	44	48
Can. Mortgage & Inv.	66	..	Loew's London, pref.	6	7
Can. Oil., com.	39	42½	Loew's London, com.	3½	4
Can. Oil, 8%, pref.	91	93	Loew's Ottawa, pref.	..	21
Can. Westinghouse	133	..	Loew's Toronto, pref.	69	72
Capital Life, 20%, pref.	24	28	Loew's Toronto, com.	39	43
Cockshutt Plow, 7%, pref.	38	40	Manitoba Power, com.	..	..
Continental Life	25	30	Marconi Wireless	80	1.00
Cosgraves Breweries	5½	6	Massey-Harris	34	36
Commercial Finance, pref.	60	..	Manufacturers Life	55	58½
Crown Life	98	..	Mtge. Disc. & Fin.	7	9
Dom. Power, pref.	96½	98½	Monarch Life, 10%, pref.	12½	..
Dom. Power, com.	40	..	Neilson, Wm., pref.	95	..
Dom. Sewer Pipe, com.	24	30	National Brick, pref.	53	56
Dunlop Tire, 7%, pref.	78	82	National Brick, com.	12	15
Durant Motors (A)	7	..	North Mex. Power, com.	7½	10
English Elec., com.	10½	12½	Ont. Equitable Life	18	22
English Elec., pref.	58½	60½	Robt. Simpson 6% pref.	89	91
Excelsior Life, 26%, pref.	32	..	Robertson, P. L.	15	25
Famous Players, 50%, com.	69	72	Sterling Bank	88½	91
Farmers Dairy	60	..	Sun Life, 50%, pref.	173	..
Great West Life	220	..	Sun Life, 35%, pref.	135	..
Gunns, Ltd., 7%, pref.	36½	38½	Toronto Brick, com.	28	..
Hamilton Pantages, com.	3	4	Toronto Brick, pref.	73	..
Hamilton Pantages, pref.	44	49	Toronto Carpet, com.	99	..
Imperial Tobacco, com.	5	7	Trusts and Guarantee	69	72
K. & S. Tire, pref.	20	23	Western Assurance	7	7½
K. & S. Tire, com.	70	90	Western Groceries, pref.	34½	36½
Canada Starch, pref.	..	..	Willard's Chocolates, pref.	..	80
La Paz Oil	12	..	Brit. Mortgage Loan	200	..

Canadian Trade

YOU will find our Monthly Letter—a review of agriculture, trade, and finance in Canada and abroad — of considerable value to you in your business.

A request to our Local Manager or a postcard to Head Office, Montreal, will place your name on our mailing list.

The Royal Bank of Canada

Canada Selling in Germany and Orient

From Our Own Correspondent.

OTTAWA.—One of the most important features of the trade situation is the growth of business with the Orient, the value of exports to China during the last three years having increased by 375 per cent.; those to Japan having increased by about 100 per cent. In the case of China, exports have gone from $2,003,000 in the year ending January, 1922, to $9,498,000 for the year ending January, 1924. In the case of Japan, the increase in exports has been from $11,153,000 to $23,824,000.

Canada is also selling Germany three times as much as she did three years ago, the increase having been from $4,934,000 to $14,557,000. Exports to Mexico have also gone up, the increase having been from $849,000 to $3,492,000.

Looking at the trade returns it is impossible to credit much as yet to the trade treaty with France, for while there has been an increase in exports during the last three years, from $10,168,000 to $18,236,000, fifty per cent. of the exports last fall were in the form of wheat, which is not included in the trade treaty.

The Standard Bank of Canada

Forty-Ninth Annual Statement for year ending 31st JANUARY, 1924

PROFIT AND LOSS ACCOUNT

Balance forward, January 31st, 1923	$ 160,566.90
Profits for the year ending January 31st, 1924, after deducting expenses, interest accrued on deposits, rebate for interest on unmatured bills, Provincial taxes, and making provision for bad and doubtful debts.	695,094.76
	$ 855,661.66
Dividend No. 130, paid May 1st, 1923, at the rate of 14% per annum	$ 140,000.00
Dividend No. 131, paid Aug. 1st, 1923, at the rate of 14% per annum	140,000.00
Dividend No. 132, paid Nov. 1st, 1923, at the rate of 12% per annum	120,000.00
Dividend No. 133, payable Feb. 1st, 1924, at the rate of 12% per annum	120,000.00
War Tax on Note Circulation	40,000.00
Reserved for Dominion Income Tax	55,000.00
Contributed to Officers' Pension Fund	25,000.00
Balance carried forward	215,661.66
	$ 855,661.66

GENERAL STATEMENT

LIABILITIES

Notes of the Bank in circulation		$ 4,580,865.00
Deposits bearing interest (including interest to date)	$40,478,339.23	
Deposits not bearing interest	11,114,922.34	
		51,593,261.57
Deposits made by other Banks in Canada		671,261.30
Balances due to other Banks in Canada		65,038.38
Balances due to Banks and Banking Correspondents elsewhere than in Canada		3,506,151.42
Advances under *The Finance Act*		2,000,000.00
Bills Payable		414.89
Letters of Credit outstanding		130,605.45
Liabilities not included in the foregoing		3,696.97
Dividend No. 133, payable 1st February, 1924		120,000.00
Former Dividends unclaimed		728.75
Capital stock paid in		4,000,000.00
Reserve Fund		2,750,000.00
Balance of Profit and Loss Account carried forward		215,661.66
		$69,637,685.39

ASSETS

Current Coin held by the Bank	$ 1,291,918.18	
Dominion Notes held	8,562,380.50	
Deposit in the Central Gold Reserves	700,000.00	
		$10,554,298.68
Deposit with the Minister for the purpose of the Circulation Fund		200,000.00
Notes of other Banks		279,741.00
United States and other foreign currencies		13,157.01
Cheques on other Banks		3,423,274.33
Balances due by other Banks in Canada		100,000.00
Balances due by Banks and Banking Correspondents elsewhere than in Canada		682,970.27
		$15,253,441.29
Dominion and Provincial Government Securities not exceeding market value	$ 8,640,829.36	
Canadian Municipal Securities and British, foreign and colonial public securities other than Canadian, not exceeding market value	2,306,992.46	
Railway and other bonds, debentures and stocks, not exceeding market value	133,416.65	
Call and Short (not exceeding thirty days) Loans in Canada on bonds, debentures and stocks or other securities of a sufficient marketable value to cover	2,984,292.79	
		14,065,531.26
		$29,318,972.55
Loans to Cities, Towns, Municipalities and School Districts		1,508,656.84
Other Current Loans and Discounts in Canada (less rebate of interest) after making full provision for all bad and doubtful debts		35,653,253.08
Non-Current Loans, estimated loss provided for		673,933.18
Mortgages on Real Estate sold by the Bank		77,670.00
Real Estate other than Bank Premises		323,408.16
Liabilities of Customers under Letters of Credit as per contra		130,605.45
Bank Premises, at not more than cost, less amounts written off		1,900,026.35
Other Assets not included in the foregoing		51,159.78
		$69,637,685.39

W. FRANCIS, *President.* N. L. McLEOD, *General Manager.*

AUDITOR'S REPORT TO SHAREHOLDERS

I certify that the above Balance Sheet is in accord with the books of The Standard Bank of Canada, and that, in my opinion, it discloses the true condition of the Bank as at 31st January, 1924. I have received all the information and explanations I have required and all transactions of the Bank which have come under my notice have been within the powers of the Bank.

G. T. CLARKSON, F.C.A.,
Auditor for the Shareholders.

Toronto, 21st February, 1924.

Atlantic Sugar Refineries
LIMITED

General Offices:
211 McGILL STREET
MONTREAL

Refineries - St. John, N.B.

Dominion Textile Company
LIMITED

Manufacturers of
COTTON FABRIC

MONTREAL TORONTO WINNIPEG

The Wabasso Cotton
Company, Limited

THREE RIVERS, P. Q.

Manufacturers of Fine White Cotton,
also Spinners' Fine Counts of Yarns

Canadian Paperboard Company Limited
Largest Manufacturers of Paperboard in Canada.
Mills at Montreal, P.Q., Campbellford, Ont., Frankford, Ont.
HEAD OFFICE: 2 Seigneurs Street MONTREAL

LAKE OF THE WOODS MILLING COMPANY KEEWATIN

LAKE OF THE WOODS MILLING CO., LTD.
Makers of FIVE ROSES FLOUR
Mills at Keewatin, Portage la Prairie, Medicine Hat
DAILY CAPACITY 13,700 BARRELS

President:
FRANK S. MEIGHEN

Vice-President:
WM. W. HUTCHISON

DIRECTORS:
Geo. V. Hastings, Abner Kingman, R. M. Ballantyne, J. K. L. Ross,
Tancrede Bienvenu, R. W. Reford, W. R. Allan,
Sir Lomer Gouin, K.C.M.G.

Ottawa Light Heat and Power Company, Limited

The Annual Report for the year ending December 31, 1923, shows revenues from all sources aggregate $1,718,402.62, being an increase of $33,021.51 over the year previous. The Expenses of Management, Operation and Maintenance, including all interest charges and $17,184.02 placed to Reserve for Bad and Doubtful Accounts, amount to $1,378,679.91, being $17,726.34 in excess of last year.

Your Directors early in the year took into serious consideration a plan for the financing of the Company, involving (1) the redemption of the Company's 8% First Mortgage and Collateral Trust Sinking Fund Gold Bonds issued under the Trust Deed made the 27th October, 1920; (2) the creation of an issue of $6,000,000 of 6% Refunding Mortgage and Collateral Trust Gold Bonds; and (3) the constitution and issue of the balance of $1,500,000 of the Capital Stock of the Company as Preferred Stock. Such financing was carried through successfully—satisfactory arrangements having been made with the Royal Securities Corporation of Montreal for the purchase of $500,000 Bonds and the underwriting of $1,500,000 6½% Preference Stock.

This financial programme was not completed until October and the benefits are therefore not fully apparent in the year under review.

From the Balance at credit of Profit and Loss Account last year, $65,664.01 has been deducted to close Suspense Account, covering deferred charges for Taxes and Bond Interest chargeable to previous years, leaving a balance at credit of Profit and Loss of $159,999.93. To this the Net Earnings for the year—$339,722.71—have been added, making the credit balance $499,722.64. Out of this, Dividends upon the Common Stock at the rate of 6%, and upon the Preferred Stock at the rate of 6½ per cent. were paid, also $25,580.78 covering Dominion Income Tax for the current year. The sum of $97,573.74 was placed to the credit of Reserve for Depreciation, which now stands at $191,314.59, leaving the balance at credit of Profit and Loss $146,796.55.

THE MAIN FEATURES OF THE BALANCE SHEET FOR THE PAST TWO YEARS ARE AS FOLLOWS:—

ASSETS

	1923	1922
Property, Plant and Equipment	$8,855,031.35	$8,627,248.57
Merchandise, Stores, Supplies, etc.	261,664.59	272,343.47
Accounts and Bills Receivable	445,543.20	444,274.58
Investments:		
Dominion of Canada Victory Bonds, 1933	79,145.55	
Ottawa Gas Co.'s 6% Refund'g Mort'ge Sink. Fund Gold Bonds	23,200.00	
Cash on hand and in Bank	95,362.07	
Deferred, (details see Balance Sheet)	234,182.01	
	$9,994,128.77	$9,343,866.62

LIABILITIES

	1923	1922
Capital Stock (Common)	$3,500,000.00	$3,500,000.00
Capital Stock (Preferred)	1,500,000.00	
Capital Stock (O. E. Co. Held by O. L. H. & P. Co.)	1,500,000.00	1,500,000.00
Bonds, (Less Sinking Fund)	2,080,500.00	2,884,000.00
Bills Payable "Banks"		232,277.46
Accounts Payable:		
Trade	161,349.95	104,014.23
Sundry	38,019.93	
Dividend—Preferred 6½% (3 Mos.)	24,375.00	
Dividend—Common 6% (3 Mos.)	52,500.00	
Reserve Account	770,000.00	770,000.00
Reserve for Depreciation	191,314.59	93,740.85
Reserve for Bad and Doubtful Accounts	29,272.75	34,170.14
Profit and Loss	146,796.55	225,663.94
	$9,994,128.77	$9,343,866.62

Respectfully submitted, T. AHEARN, President.

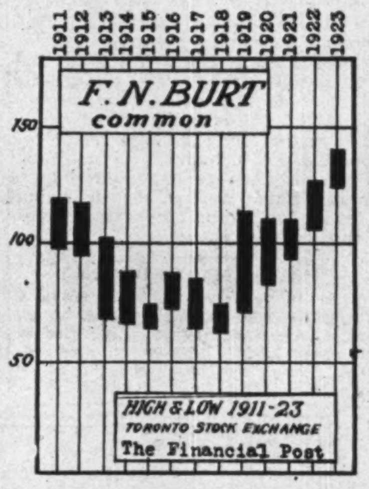
OTTAWA, February 20th, 1924.

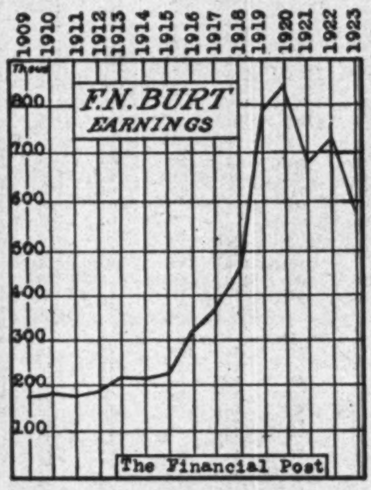
F. N. Burt, a World Leader was Maker of Small Paper Boxes

An American Industrial Monument to Canadian Enterprise—Last Year's Profits Suffered Because of Heavy Investment From Earnings in Improvements in the Business

The annual report of the F. N. Burt Co. for 1923, which has just been issued, shows profits of $594,258 compared with $721,627 for the previous year, but in this connection there is an explanation by the president, S. J. Moore, that a large amount of development work was carried on in respect to new departments which give promise of adding to the company's earning power and this expenditure was made out of current revenues. —The following summary of the profit and loss account indicates the manner in which profits were distributed:

	1923	1922
Profits	$ 594,258	$ 721,627
Bal. forward	1,011,650	842,682
Less Fed. taxes	61,356	77,490
	$950,294	$765,192
	$1,544,552	$1,486,819
Depreciation	200,066	194,377
Writ. off patents	24,511	23,910
Pref. dividends.	29,976	36,491
Com. dividends.	229,697	220,390
Balance	1,060,302	1,011,650
	$1,544,552	$1,486,819





The company's assets were valued at $5,232,788, as against $5,141,687 at the end of 1922, and $4,721,721 at the end of 1921. At the close of the year under review liquid assets were valued at $100,570,281, and fixed assets at $3,662,507. Plants were valued at $2,687,945, which is $50,000 more than a year ago. The company's realty and plant reserves is placed at $1,156,922, or $51,000 above the total given a year ago.

A World Leader

To-day recognized as the world's largest manufacturer of small paper boxes, the F. N. Burt Company, Ltd., was organized in its present form in September, 1909, for the purpose of acquiring the F. N. Burt Company, Inc., of Buffalo, N.Y., manufacturers of paper boxes and the salesbook business carried on in Canada by the Carter-Crume Company, Ltd., and the Merchants' Counter Check Book Company, Ltd., of Toronto. Later, in the early part of 1911, the Dominion Paper Box Company, Ltd., of Toronto, was acquired as an established business through which the F. N. Burt Company's paper box line could be introduced into the Canadian market. The largest of these constituent companies was F. N. Burt Company, Inc., of Buffalo, which had been founded by Mr. Frederick N. Burt, in the year 1886, and which had had a particularly successful career from its commencement.

The Market Record

The common stock was listed on October 14, 1909, and in that month ranged from 53 to 55. During 1910 it recorded a very rapid advance from a low of 59 in January to a high of 96 in December and this advance was continued to a high of 118¾ in 1911. Quotations declined in 1913 and 1914 to 68 when trading was suspended on account of the war. After resumption of trading in October, 1915, the price started at 65 and has since moved forward to a high of 140 in 1923.

The preferred was traded around 91 in 1909 after being listed but moved steadily up to a pre-war high mark of 122¼ in 1911. This stock was, of course, affected by the war depression but moved to a high mark above 135 last year.

The dividends on the preferred have been paid regularly since January, 1910: On the common stock 4 per cent. per annum was paid quarterly from April 1st, 1910, to October 1st, 1910; beginning January 1, 1911, 1½ per cent. quarterly to July 1, 1914, inclusive; October 1, 1914, to October 1, 1916, 1 per cent. quarterly; January 1, 1917, 1½ per cent. and 1½ per cent. extra; April 2, 1917, 1½ per cent. which rate was paid quarterly to and including January 2, 1919; April 1, July 1, and October 1, 1919, January 2, April 1, July 2, 1920, 2 per cent. each; October 1, 1920, to January 1, 1923, inclusive, 2½ per cent. each quarter. In addition the company paid an extra dividend of 10 per cent. on July 2, 1921.

Stock Conversion

Preference stock may be converted into common stock share for share at any time. During 1923 the preferred stock outstanding was reduced from $492,000 to $392,700 and the common increased from $2,233,100 to $2,332,500, indicating that shares to the value of $99,400 had been transferred. Originally the authorized preference stock was $2,000,000 of which $1,975,200 was issued and the authorized common was $1,500,000 of which $750,000 was issued. Up to Dec. 31, 1923, $1,582,500 preferred stock had been converted into common, thus automatically reducing the amount of authorized preference to $417,500 and the issued preference to $392,700. The amount of common authorized was automatically increased to $3,082,500 and the issued common to $2,332,500.

Capital Stock Outstanding

Preferred—	
Issued before 1911	$750,000
Issued March 15, 1911	300,000
Issued March, 1911	380,200
Issued Nov., 1913	545,000
	$1,975,200
Exchanged, 1911	$108,500
Exchanged, 1922	80,000
Exchanged, 1923	99,400
Exchanged, 1920	420,200
Exchanged, 1921	874,400

SUMMARY OF COMPANY'S RECORD SINCE 1909

	Profits for year	Reserves etc.	Other Deductions	Preferred Dividends	Common Dividends	Surplus for year
1909	$174,594	$ 20,000	*$79,543	$13,125	$	$58,926
1910	183,401	25,000	3,187	52,500	33,750	68,964
1911	178,442	25,000	2,750	94,381	45,000	11,310
1912	189,430	25,000	16,625	101,293	45,000	1,512
1913	217,302	25,000	3,026	136,515	45,000	1,761
1914	212,392	30,000	.....	138,264	37,500	6,628
1915	222,267	45,000	.....	138,264	30,000	9,003
1916	329,515	75,000	.....	138,264	45,000	71,251
1917	369,999	120,710	25,679	138,264	45,000	40,346
1918	470,377	157,306	25,887	138,264	45,000	103,920
1919	795,715	178,377	23,112	138,273	62,276	395,677
1920	842,712	231,679	†125,088	119,754	94,378	271,813
1921	674,754	240,138	†112,235	54,306	410,250(df.)	142,174
1922	721,627	218,288	† 77,490	36,491	220,390	168,968
1923	674,755	240,137	.....	54,306	229,697	48,652

Balance forward Dec. 31, 1923, $1,060,302.

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*Amount deducted as per agreement with vendors.

†Taxes for 1919 paid in 1920; for 1920, paid in 1921; for 1921, paid in 1922.

Earnings on Common Stock—1910, 17.45 per cent.; 1911, 11.21 per cent.; 1912, 11.75 per cent.; 1913, 10.77 per cent.; 1914, 9.88 per cent.; 1915, 11.20 per cent.; 1916, 25.50 per cent.; 1917, 30.89 per cent.; 1918, 14.54 per cent.; 1919, 25.13 per cent.; 1920, 34.49 per cent.; 1921, 51.94 per cent.; 1922, 81.94 per cent.

Earnings on Pref.—1910, 21.45 per cent.; 1911, 12.48 per cent.; 1912, 11.25 per cent.; 1913, 11.00 per cent.; 1914, 10.75 per cent.; 1915, 11.25 per cent.; 1916, 16.89 per cent.; 1917, 18.73 per cent.; 1918, 19.86 per cent.; 1919, 38.77 per cent.; 1920, 29.64 per cent.; 1921, 11.27 per cent.; 1922, 16.43 per cent.

PROFIT AMERICAN SALESBOOK HIGHER

Distribution of Three Dividends Totalling $1 Per Share on the Common Stock

Continued increase in profits is shown in the annual statement for 1923 of the American Salesbook Company. Net earnings were $572,792 compared with $558,364 for 1922, and $515,891 for 1921. The profits were sufficient to meet fixed charges, allow substantially for depreciation, the distribution of the 7 per cent. dividend and three dividends amounting to $1 per share on the common stock and provide a considerable increase in the balance carried forward. Following are comparative figures:

	1923	1922
Profits	$572,792	$558,364
Bal. forward	129,224	238,836
Less taxes	36,365	34,050
	92,879	204,886
	$665,671	$763,250
Bond interest	14,499	21,135
Deprec. reserve	140,915	137,219
Red. patents	50,000	50,000
Pref. dividends	215,131	215,131
Com. dividends	92,199	49,172
Pref. arrears		161,348
Balance	152,927	129,244
	$665,671	$763,250

The balance sheet shows that the company's assets are valued at $5,645,406, including real estate and buildings valued at $431,892, plant and machinery at $1,426,442, investments in allied companies at $405,691, and patents and goodwill at $2,357,570. Among the liabilities is shown a reserve fund for depreciation on buildings and plant amounting to $1,095.327 and other reserves of $25,398. The profit and loss balance of $152,927 is subject to deductions for Federal income taxes on the year's profits.

ONE HALF POUND
HERBERT TAREYTON
LONDON
SMOKING MIXTURE
Import and Export
Herbert Tareyton
In Packages
25c and 75c
In Tins
½'s - $1.50
1's - $3.00
"Tarey" made a pipe smoker out of me"

Herbert Tareyton
LONDON
SMOKING MIXTURE
"THERE'S SOMETHING ABOUT IT YOU'LL LIKE"
TP.4

An Expensive Business Training

A YOUNG MAN often pays dearly for the business training he receives as Executor of his Father's will.

If he succeeds in administering the estate well and assuring a good income to his Mother and Sisters, it is often at the cost of work, worry, and nerve strain that overtax his energy.

And if he fails—it is the Family which pays.

Young men must learn in the hard school of experience. But by administering an estate upon which a family is dependent—No. There is too much at stake.

Save your boy for his own business or profession.

Save your fortune for your family.

Name the Canada Permanent Trust as your Executor, and make sure of experienced protection.

THE CANADA PERMANENT TRUST CO.
Paid-up Capital One Million Dollars
Toronto Street, Toronto.
Manager Ontario Branch - A. E. HESSIN

LLOYDS BANK LIMITED.

HEAD OFFICE: 71, LOMBARD ST., LONDON, E.C. 3.

($5 = £1.)

Capital Subscribed $359,323,900 | Reserve Fund - $50,000,000
Capital Paid up - $71,864,780 | Deposits, &c. $1,677,972,070

EASTERN DEPARTMENT:
77, LOMBARD STREET, LONDON, E.C. 3.

In consequence of the acquisition of the businesses of Messrs. COX & Co. and Messrs. HENRY S. KING & Co. (including Messrs. KING, KING & Co. and Messrs. KING, HAMILTON & Co.), LLOYDS BANK now has the following Offices in India, Burmah and Egypt:—

INDIA & BURMAH.—BOMBAY, CALCUTTA (2 Offices), KARACHI, RANGOON, DELHI, SIMLA, RAWAL PINDI, MURREE, SRINAGAR (Kashmir), GULMARG.

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General Banking, Exchange and Agency Business of every description. Special facilities with the British Isles, Australia, Canada, New Zealand, the Continent, and North and South America.

Automobile and Piano Paper
MANUFACTURERS FINANCE CORPORATION LIMITED
TORONTO, Federal Building
AUTHORIZED CAPITAL - - $6,500,000

CLARKSON, GORDON & DILWORTH
CHARTERED ACCOUNTANTS
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PENMAN'S PROFITS WELL MAINTAINED; EARNINGS 17.13%

Sales Up Ten Per Cent. and Profits Also Up a Bit

STRONG CASH POSITION

Working Capital Increased and Stands at Large Figure of Three and Half Millions

From Our Own Correspondent.

MONTREAL. — Penman's stands apart from the other textile companies in which Canadian investors are widely interested, for its business is the manufacture of knit goods, and the problems of high cotton prices and foreign competition that have beset most of the textile companies this year have left Penman's comparatively unscathed. The annual statement for the year 1923, just presented, is a document that incites to optimism in rare fashion, and indicates the fundamental soundness to which this corporation has attained.

The company's sales increased during the year by a moderate amount and made possible an increase in profits that more than justified the payment of a common stock bonus of two per cent. above the regular dividend of eight per cent.

Earnings Were 17.13 Per Cent.

After payment of preferred dividends there was left, for 1923, $368,451, as compared with $367,231 in 1922, representing an increase from 17.07 per cent. to 17.13 per cent. in the rate per cent. earned on the common stock, not a large increase, but a healthy maintenance of earnings position, in view of the troubled conditions in some branches of the textile industry during the past year.

In his report to the shareholders, the president, Sir Charles Gordon, points out that sales for the year amounted to $6,847,877, as against $6,224,740 in 1922, an increase of about ten per cent.

Profit and Loss Comparison

	1923	1922	1921
Profits	$751,002	$731,434	$223,855
Bond int.	100,000	100,000	100,000
Balance	$651,002	$631,434	$123,855
Deprec.	100,000	100,000	.....
Balance	$551,002	$531,434	$123,855
Taxes	50,000	40,000	.....
Balance	$501,002	$491,434	$123,855
*Machinery	41,583	42,625	.....
Balance	$459,419	$448,809	$123,855
Bad debts	26,468	17,077	8,806
Net earn.	$432,951	$431,731	$115,049
Pfd. divs.	64,500	64,500	64,500
Balance	$368,451	$367,231	$50,549
Com. divs.	172,048	172,048	215,060
Balance	$196,403	$195,183	†$164,511
Com. bonus	43,012	.....	.....
Surplus	$153,391	$195,183	†$164,511
Prev. surp.	1,076,065	880,881	1,045,381
P.&L. bal.	$1,229,456	$1,076,065	$880,881

*Written off. †Deficit

The earnings figures are interesting to consider in connection with the market position of the stock. The market price indicates that investors are expecting something in the nature of bonus or a split-up of Penman's stock along the lines of the Dominion Textile split-up. The report indicates that a three-to-one split-up, with the new stock going on a four per cent. basis, or a two-to-one split-up, with a dividend arrangement of six per cent., would at least be justified by earnings.

Larger Working Capital

The balance sheet shows few changes. Working capital position has been improved somewhat, comparative figures being as follows:

	1923	1922	1921
Cur. assets	$3,651,778	$3,682,530	$3,344,465
Cur. liabs.	147,342	264,092	202,315
Work. cap.	$3,504,436	$3,418,438	$3,142,150

Goodwill of Penman's is carried at only $1 on the books of the company. Up to the end of 1921 this was carried at $2,250,000, but in 1922 was wiped down to $1 by an appropriation from the reserve which formerly stood at about $3,000,000, and now stands at about $742,000.

N.B. Fails in Case Against the C.P.R.

From Our Own Correspondent.

ST. JOHN.—Another chapter in the litigation between the province of New Brunswick and the Canadian Pacific Railway has been written. An appeal of the attorney general of the province against the judgment of the presiding justice in the case of the new steel bridge over the St. John River at St. John has been denied by the appeal court of New Brunswick.

At the instance of shipping interests and lumbering and coal mining concerns, the attorney general of New Brunswick filed suit against the railway seeking the increase in height of the new bridge by seven feet. It was claimed that vessels could not pass under the bridge without removal of topmasts. The company claimed that increase in height would weaken the structure. The decision of the judge was that no increase in height would be ordered. In the appeal court it was explained that it was the opinion of the court that the suit should not have been started by the attorney general of New Brunswick as it was solely within the jurisdiction of the minister of justice for Canada.

The Toronto General Trusts Corporation, which has carried on its Saskatoon business for the past ten years in the Canada building, has purchased the Bank of Hamilton building at the corner of Second Avenue and Twenty-first street.

Few Exchanges Being Made of Besco Shares

From Our Own Correspondent.

MONTREAL.—Annual report of British Empire Steel indicates that only minor exchanges of shares of the subsidiary companies have been during the past year for shares of the parent company. There is now a total of $79,102,375 of stock of British Empire Steel Corporation in the hands of the public, a slight increase from the previous year's figure of $78,904,175. Preference stocks of the various subsidiaries are now outstanding to the amount of $11,948,800, representing a slight decline from the previous year's figure of $12,145,600.

The corporation has not attempted to set a time limit to the period within which exchanges must be made.

NORWEGIANS ARE COMING

QUEBEC.—The Dominion of Canada will secure between 8,000 and 10,000 Norwegian immigrants during the coming season, if the reports of five prominent Norwegian shipping men, who arrived in Canada recently, are received with favor by interested parties in that country. It is stated that if such a movement gets under way a large number will settle in this province.

Pulp and Paper Securities

PAPER INDUSTRY'S GROWTH REVEALED; BLUE BOOK STORY

From Small Beginnings Big Industry Has Developed Rapidly

From Our Own Correspondent.

MONTREAL. — The manufacture of pulp and paper is a comparatively recent development in Canadian industry. The first paper-mill in Canada was established at St. Andrews in Quebec in 1803. In 1825 at Crook's Hollow was erected the first paper-mill in what was then Upper Canada. What is claimed to be the first wood pulp-mill in Canada was erected by Angus Logan & Company at Windsor Mills, Quebec, about 1870. The Riordons were among the first to manufacture ground-wood pulp and in 1887 Charles Riordon installed the first sulphite mill at Merritton, Ontario. In the census of 1871 pulp-mills are not mentioned but in 1881 five mills were reported with a total capital of $92,000, sixty-eight employees and an output valued at $63,000. In 1891 there were twenty-four mills and at the present time there are approximately fifty pulp-mills, thirty combined pulp and paper mills and forty mills equipped for manufacturing paper only. The mills were operating with invested capital of $381,000,000 at the end of 1922 and in that year had an output with a value of $156,000,000.

These and other interesting figures on the growth and extent of the industry in Canada are contained in the Dominion Bureau of Statistics report on the industry in 1922, which has just been issued.

Industry Grows in Importance

The pulp and paper industry in Canada increased steadily in importance from 1908 when annual statistics were first collected up to 1921 when the total net value of production reached its peak at $236,420,176, as shown in the following table:—

TOTAL PRODUCTION

Year	Production Pulp	Tonnage Paper	Total net* value of Production
1919 ..	1.716,089	1.090,235	$140,186,457
1920 ..	1,960,102	1,214,951	236,420,176
1921 ..	1,549,082	1.018,947	151,003,165
1922 ..	2,150,251	1,366,815	155,755,388

*Includes value of pulp sold and paper manufactured, does not include value of pulp made for own use.

The most important class of paper produced in Canada is newsprint paper.

Newsprint paper has formed about eighty per cent. of the total paper production since 1917 when the first annual paper statistics were collected.

Different Kinds of Paper

How production has grown in each class of paper is shown in this table:

REVIEW OF PAPER PRODUCTION

Newsprint paper

Year	Quantity tons	Value $
1917	689.847	38.868.084
1918	734.783	46.230.814
1919	794.567	54.427.879
1920	875.696	80.865.271
1921	805.114	78.784.598
1922	1,081,364	75.971.327

Book and writing paper

Year	Quantity tons	Value $
1917	48.141	9.310.138
1918	48.150	10.732.807
1919	58.228	12.571.000
1920	73.196	21.868.807
1921	53.530	12.550.520
1922	64.808	12,560,504

Wrapping paper

Year	Quantity tons	Value $
1917	50.360	5.646.750
1918	61.180	7,341.372
1919	59.697	7.979.418
1920	77.292	12.161.303
1921	52.898	6.634,211

(Continued on page 43)

Chatham Trade Board Favors Pulp Embargo

From Our Own Correspondent.

ST. JOHN.—The first commercial organization to place itself on record as heartily in favor of the embargo on pulpwood exportation to the United States is the Chatham, N. B., Board of Trade. This body, at a special meeting, endorsed the campaign now being waged to introduce the embargo, on the ground that the measure would result in the building of additional pulp and paper mills in Canada, and also aid in the conservation of pulpwood.

Chatham is one of the most important pulp centres of the Maritime provinces. It is located in the pulpwood territory on the north shore of New Brunswick. It is also an important lumbering centre. A pulp mill controlled by the Fraser companies is located in Chatham. The offices of many pulpwood buying and operating concerns and individuals are also in Chatham.

SAVING CHEMICAL PULP INDUSTRIES FROM EXTINCTION

That is the Big Problem Affecting Investors of Canada

From Our Own Correspondent.

MONTREAL.—How can Canada's chemical pulp industry be saved from extinction? That indeed is an alarming question, but it was asked the other day by a man who has directed the financing of a number of important concerns that are integral units in Canada's chemical pulp industry. The fact that the suggestion of possible disaster for the industry was in his mind indicates that there are grave disturbances in this branch of the Canadian pulp and paper industry.

In the first place, it might be worth repeating that chemical pulp is a product manufactured from wood by a chemical process. It is not in itself a finished material, but is the raw material of the wrapping paper and high-grade paper manufacturers, and, to a lesser extent, of the newsprint manufacturers. Canada is one of the world's largest producers of the two chief classes of chemical pulp sulphite and sulphate, but it does not dominate the world's production, for Finland, Sweden, Norway, and other countries, are very important producers.

Dumping From Europe's Mills

A great deal of such pulp is manufactured in Canada by mills that use it themselves for the manufacture of paper, and that have no surplus production for sale. But the other mills that produce only pulp have to find a market for it either in Canada, the United States, or in some other country. And because Europe is not in a position to find a market at home for its production of pulps, the production of the Northern European countries has been coming into the United States, and other markets, and competing with Canadian pulps to such a degree that broad and violent price fluctuations have taken place and the Canadian mills have found it difficult to stand the strain. One by one many of them have gone into liquidation until several of the important sulphite and sulphate pulp producers of Canada are being operated by receivers, and the Canadian investors who have bought their securities have lost out.

Looking for the Remedy

This is a most unsatisfactory state of affairs, and the condition need not be glossed over. What is the remedy? Here are some of the thoughts that occur to well-posted pulp and paper men:

In the first place it will be necessary to proceed with the squeezing out of the water in many of the companies that have been over-capitalized and expensively financed. This will be the inevitable result of the liquidation of a number of the companies.

Secondly, it will be necessary, pulp and paper men feel, to provide for closer co-operation between the Canadian producers in the marketing of their products. At the present time the different Canadian companies are throwing their production on the markets of the world in rather indiscriminate fashion, cutting prices where necessary and not attempting to exercise any influence on market prices or on supplies by joint control of the sale of the output of all the Canadian mills. It is felt by numerous pulp and paper men who have discussed the matter with THE FINANCIAL POST that a large export sales corporation to market Canada's output of sulphite pulp would solve the problem of the chemical pulp industry of Canada.

Free Entry for Our Papers

Another step that would mean a complete reversal of form for Canadian pulp producers would be the obtaining of free entry of all classes of Canadian paper into the United States. Canadian newsprint now enters the United States duty free, but Canadian bond paper, writing paper book paper, wrapping paper, etc., are subject to duties that effectively bar their sale across the border. If all classes of Canadian paper went free into the United States, paper mills in other fields than newsprint would move to Canada to take advantage of the lower costs of production in this country, and there would be created a great home market for Canadian sulphite and sulphate pulps. What would probably happen would be that such companies as Whalen, Riordon, Bay Sulphite, Mattagami, and others that are having their difficulties, would re-finance and construct paper mills to utilize their output. It has been proven by experience that the mills that control the ulimate production of their pulp have been most successful. The Brown Corporation, for instance is an important sulphite and sulphate producer which sells all of its product under contract to its parent and American organization. The Brompton Company is also a large producer of sulphite and sulphate pulp, but sells its product to its own American paper mills.

But, longing for free entry of our papers into the States, and achieving that end, are two different things. The tendency now is to feel that we could get free entry of papers into the States by using the embargo on pulpwood as a basis of bargaining. It is felt by the pulp and paper men that the Canadian government has badly bungled negotiations with Washington along this line. Not only have we shelved the embargo by such expedients as secret orders-in-council, and a meandering commission of inquiry, but we have not even attempted to make a dicker with the United States to take off the duty on our papers in exchange for an unlimited supply of pulpwood cut from private lands in Canada. Some interesting views along this line were expressed the other day by R. O. Sweezey, one of Canada's leading pulp and paper engineers, who told the royal commission in Montreal that he was in favor of an embargo on pulpwood shipments from Canada, but felt that a better arrangement would be a compromise between Canada and the United States. He suggested that Canada should sell all the pulpwood the Americans need, provided Canadian forest products "from stump to highest grade paper" be admitted duty free to the United States. Otherwise he said he would favor an embargo.

The Bank of Nova Scotia

Established 1832

Capital ....$ 10,000,000
Reserve Fund 19,500,000
Total Assets 220,000,000

GENERAL OFFICE—TORONTO, ONT.
J. A. McLEOD, General Manager.

Branches at all the principal centres throughout Canada and in Newfoundland, Cuba, Porto Rico, Dominican Republic, Jamaica, and in the United States at—
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Write for Full Particulars

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and Scarifiers
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Waterous
BRANTFORD, ONTARIO, CANADA

THE BELL TELEPHONE COMPANY OF CANADA

Comparative Statement of Earnings and Expenses for the Years 1922 and 1923.

	1922	1923	Increase
Telephone Revenues	$20,245,822.92	$22,225,714.24	$ 1,979,891.32
Operation Expenses	$ 9,495,098.14	$10,293,340.50	$ 798,242.36
Current Maintenance	3,201,020.86	3,412,384.37	211,363.51
Depreciation	2,967,506.00	3,356,411.00	388,905.00
Taxes	821,357.64	982,320.00	160,962.36
Total Telephone Expenses	$16,484,982.64	$18,044,455.87	$ 1,559,473.23
Net Telephone Earnings	$ 3,760,840.28	$ 4,181,258.37	$ 420,418.09
Sundry Net Earnings	208,471.87	695,876.27	487,404.40
Total Net Earnings	$ 3,969,312.15	$ 4,877,134.64	$ 907,822.49
Deduct Interest	1,035,644.28	1,067,175.92	31,531.64
Net Income	$ 2,933,667.87	$ 3,809,958.72	$ 876,290.85
Deduct Dividends 8%	2,457,740.00	3,135,920.95	678,180.95
Balance	$ 475,927.87	$ 674,037.77	$ 198,109.90
Appropriation for Employees' Benefit Fund	....	200,000.00	200,000.00
Balance to Surplus	$ 475,927.87	$ 474,037.77	*$ 1,890.10

*—Decrease.

ASSETS

	December 31, 1922	December 31, 1923	Increase
Real Estate	$ 5,404,258.41	$ 5,841,545.02	$ 437,286.61
Telephone Plant, etc.	61,606,515.97	70,549,571.95	8,943,055.98
Furniture, Tools and Supplies	2,411,603.80	3,013,845.46	602,241.66
Cash	1,208,279.40	654,036.08	*554,243.32
Marketable Securities (Dominion Govt. Bonds)	1,550,675.00	3,088,820.45	1,538,145.45
Bills and Accounts Receivable	1,269,559.31	2,184,077.28	914,517.97
Prepayments	118,948.01	148,547.79	29,599.78
Unamortized Bond Discount	160,505.03	89,169.47	*71,335.56
Investment Securities	2,817,257.45	2,797,718.45	*19,539.00
	$76,547,602.38	$88,367,331.95	$11,819,729.57

*—Decrease.

LIABILITIES

	December 31, 1922	December 31, 1923	Increase
Capital Stock Issued	$32,049,000.00	$39,929,400.00	$ 7,880,400.00
Bonds 1925 (5% $11,250,000.00 7% 5,500,000.00)	16,750,000.00	16,750,000.00	....
Accounts Payable	938,233.29	2,317,726.20	1,379,492.91
Accrued Liabilities not due	1,483,021.55	1,850,638.00	367,616.45
Unearned Revenue	19,037.46	18,854.12	*183.34
Prepaid Stock Subscriptions	569,250.00	....	*569,250.00
Employees' Benefit Fund	500,000.00	722,752.45	222,752.45
Reserve for Depreciation, etc.	18,988,490.83	20,614,892.55	1,626,401.72
Surplus	5,250,569.25	6,163,068.63	912,499.38
	$76,547,602.38	$88,367,331.95	$11,819,729.57

*—Decrease.

Synopsis of Directors' Report for the year ended December 31, 1923.

Taking the broad view of obligation to the owners of the property and to the public, your Directors are able to report that the results for 1923 are better than those of 1922. This appears not only in the financial return upon the year's operations, but in the important matters of the number of customers served; in the volume of use, evident in both local and long distance business; and in the quality of the service.

Requirements of the Telephone Industry

The success of your Company's undertaking lies in the provision of adequate service in its own territory, with connection beyond that area, at rates which will insure the widest possible public use, while giving the investor an adequate return upon his money, with due protection for his property, to an extent which should insure the steady inflow of sufficient new capital to meet the demand for extension.

Certainty of Demand

Our growth is a general recognition that telephone service is not merely useful but actually indispensable in modern life, and that its value far exceeds its cost to the user.

Service is now required of us in homes and small places of business which, a few years ago, could not have been considered as a possible market. Thus, within our present boundaries, the telephone field is broadening daily; therefore, we are obliged to meet demands for a rapidly growing local service.

Development of Toll Business

Our sales effort and supporting publicity were directed to increasing the systematic use of our toll lines, and have resulted in a substantial growth in toll revenue and in stimulating the public confidence in the long distance service.

While the number of local calls in 1923 increased 6.3 per cent. over 1922, the long distance calls increased 11.4 per cent.

Increase in Stations

During 1923 there were placed in new locations, by addition or transfer, 120,084 telephones, and there were removed by cancellation or transfer 68,066, resulting in a net growth of 52,018.

This is the highest record of net growth in the Company's history, and indicates the extent to which new facilities were put into use—earning revenue.

Additions to Plant

The gross additions to plant for the year amounted to $12,698,582.83 of which the following are the principal items already made available for service:

Land and Buildings .... $ 457,909.28
Central Office Apparatus and Subscribers' Telephones $4,668,478.96
Exchange and Toll Lines $4,626,785.88

Financing for the Year's Work—1923

The large undertakings of the year required heavy capital outlay.

Under the authority previously given to your Directors there were issued during the year 78,804 shares.

61,553 of these were taken up by the shareholders.

4,751 shares were bought by employees under the plan authorized in May, 1922.

12,500 shares were sold in one block in England at the market price.

Plans for 1924

As announced, the requirements of 1924 are to be provided for by the sale to shareholders at par of one new share for each five shares held. This stock is to be paid for by instalments, in order that provision of the capital may keep pace with the progress of the construction work for which it is required.

Pension and Benefit Plan

There are now fifty-two persons on the pension roll, a net increase of nine during the year. With increasing years and numbers there is a cumulative liability on this and the Death Benefit account, to provide for for which the Benefit Fund has been increased to $722,752.00.

2,311 Sickness Benefits were granted in 1923, an increase of 409 over 1922.

Staff

The past year's achievements have been made possible by the splendid morale of our forces, fostered and maintained by employee organizations, and by the example of the supervisory employees.

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MONTREAL

The Current Issue of
Gibson's Fortnightly Mining Review
gives up-to-the-minute particulars concerning Clifton's reorganization, an analysis of Hollinger's Annual Report, comparative production figures for Dome Mines for 25 months, and new information concerning
Keeley Silver
Argonaut
Goldale
Crown Reserve
and numerous other mining companies of Northern Ontario.
The information contained in this little publication is certain to be of interest to every holder or prospective purchaser of these securities. It will be mailed regularly, without charge, on request.
Homer L. Gibson
AND COMPANY
Bank of Hamilton Bldg.
TORONTO

EASY TERMS FOR INVESTORS
A purchase of 5 Telephone "rights" at $4.25 to $4.50 per "right," gives the privilege of purchasing Bell Telephone stock on the following terms of payment.
1st April 1, 1924.....$25 per share
2nd July 2, 1924.... 25 per share
3rd Oct. 1, 1924..... 25 per share
4th Jan. 2, 1925...22.75 per share
Example:
5 "rights" cost, say $22.50
4 payments, as above....... 97.75
Cost, 1 share Bell Tel.....$120.25
(No account too small to receive our careful attention)
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Members Montreal Stock Exchange.
152 St. James Street, Montreal
Main 4090.
T. Kelly Dickinson, J. Y. K. Walbank, W. McLea Walbank.

MINING NEWS FOR THE INVESTOR

SYDNEY MINERS WORKING WELL IF LEFT ALONE

Danger in Situation is From Many and Various Agitators

From Our Own Correspondent.

SYDNEY.—After a hectic week, Cape Breton miners are settling down to a production pace unequalled in recent months. Every mine on both sides of the harbor is producing at capacity, and if agitators of all kinds will leave them alone, the men will be steadily employed for the balance of the winter banking coal for the St. Lawrence. Last week's crisis was caused by the fact that three of the four northern pits at Sydney mines (formerly Scotia) had not worked since the general shut down on January 15, although all the Glace Bay and New Waterford mines were opened as soon as the Montreal agreement was reached.

Leaders of the men asserted that this was because the company wished to beat down the rates in the Scotia mines (which have always had a lower scale than the Dominion pits) while the company declared that at this time of year the Northern mines can only be worked at a clear loss.

At this point, professional politicians projected themselves into the fray with the old battle cry that the merger was responsible for this situation, and that if Scotia had remained independent there would have been plenty of work for all.

Mining experts declare the real fact to be that coal had been raised from some of the Scotia shafts for nearly a century, and that they have been worked to the limit of their capacity. The supply has not been exhausted, but until further advances in submarine mining technique have been made it cannot be won at a profit.

In land mines this extensive working would not matter so much, as new shafts could be dug to tap the seams at points near the working faces, but some of the Scotia pits extend out for miles under the ocean. The coal must be brought back through tunnels to a shaft on the coast line, and they have now reached a point where it costs more to maintain and haul than the product is worth in the market.

Merger Saved Situation

These experts also say that but for the merger with the stronger corporation Scotia would probably have been compelled to abandon these pits some time ago. It is also stated that to sink new coastal shafts under local conditions would be so expensive that it might be cheaper in the long run for the company to undertake the expense of transporting the whole town with its hundreds of mine workers houses, and equipment, to some other part of the territory where coal can be more easily won.

The situation constitutes an economic and engineering problem without parallel in the history of Canada, and some of the ablest mining engineers in the country are giving it their earnest consideration. What their decision will be cannot be forecast, but it is within the bounds of possibility that the future may see the whole town of Sydney mines transplanted bodily to some other part of the island, where profitable

(Continued on page 41)

SILVER AND OTHER METALS

February—	25	26	27	28
Silver—				
London, (P)	33 9/16	—	33⅝	33⅝
New York	64¾	64¼	64¼	64
Copper	13⅛	13¼	—	13¼
Lead	8.70	8.70	—	8.70
Zinc	6.85	6.85	—	6.80

Mining Stock Quotations

Week Ending February 26,

	High	Low	Close Feb. 26	Close Feb. 19
Apex	2½	2¼	2½	2½
Argonaut	60	52	52¾	58
Atlas	4½	4	4	4½
Baldwin	5⅝	5	5¼	5½
Beatty	4¾	4	4¾	4½
Beatty Rts.	3½	2⅞	3¼	3¾
Beaver	27	25½	26	27
Bidgood	10½	10¼	10½	10⅝
Buckingham.	5½	4⅞	5½	5
Capitol	33	31	32½	32
Castle Tre.	70	58	66	57½
Coniagas	2.20	2.20	2.20	2.30
Cons. Smelters	37⅛	36½	37	36¾
Cons. W. D.	27	25½	26¼	25¾
Clifton	9	8	8⅝	8½
Crown Res.	70	60	64½	59½
Davidson	5¼	5	5½	4¾
Dome Mines.	18.25	17.70	18.00	17.80
Everett	13½	12¼	13½	13
Gold Reef	2	2	2	2
Goldale	39	28	32½	35½
Hattie	9½	7½	9½	8
Lakeside	24	20	22½	21
Hollinger	12.00	11.50	11.60	11.55
Hunton	7	6⅞	7	6½
Inspiration	9½	9½	9½	9½
Indian	32	30	31	32
Keora	12	11	11½	11½
Keeley	2.53	2.38	2.46	2.38
Kirk. Lake	20	19	19½	20¼
La Rose	24	21½	22	23
Lebel Oro	35	33	35	33
Lake Shore	3.60	3.52	3.60	3.55
Lorrain, T. L.	1.30	1.27	1.27	1.27
Lorrain	16	15	15	15¾
McIntyre	17.25	17.00	17.20	17.40
McKinley	16½	13¼	15¾	14
Mining Corp.	3.60	3.42	3.50	3.38
Moneta	22½	22	22	22½
Montreal, Ont.	22	16¾	20	17½
Newray.	39	36	39	36
Nipissing	6.55	6.45	6.50	6.40
Night Hawk	95¾	94	95½	94
Pete. Lake	9	9	9	9¼
Porc. Crown	10¾	10	10	10¾
Preston E. D.	13	12½	12⅞	12⅝
Rouyn	41½	39	41½	40
Teck Hughes	1.29	1.24	1.25	1.24
Thomp. Krist	6½	4¾	5¾	5
Timiskaming.	30½	30	30	31
Tough Oakes	75	67	72	67½
Trethewey	10	7	9¼	7⅞
Vickers	22	21	21	23
Vipond Cons.	1.31	1.20	1.25	1.20
West Tree	5½	4½	5⅛	4½
Wettlaufer	20	18½	19	19
Wright Har.	2.90	2.75	2.80	2.90
NEW YORK PRICES				
Inter nickel,				
Com.	13¾	12½	12⅝	13¼
Pref.	82¼	81	82¼	80
OIL COMPANIES				
B. A. Oil	36½	35½	36¼	36¾
Imperial Oil	115	115	115	111
Inter. Petrol.	21	20⅝	20⅝	20
Mutual Oil	13	12⅝	12⅝	12¼

Mining Shares Reacted —Selling Not Heavy

The mining market is weak. There has been considerable professional selling while the only substantial buying that has appeared of late has come from England and has been confined to a few favored issues. There has not been much selling but the tendency seems to be to make the best of any unfavorable news as evidenced by the drive on Goldale. This is due to the fact that exploration ceased and diamond drilling was undertaken to try and pick up the downward extension of the mineralized zone cut on the 500. All big issues have been weak. Hollinger report caused some adjusting. Dome continues to labor along below $18. McIntyre is not strong. Vipond has reacted a few points as has Lake Shore, Teck-Hughes, and Wright-Hargreaves, although nothing but good news is coming from these properties. Tough-Oakes Burnside stands up well and is in steady demand.

Keeley and Mining Corp., the two leading silver issues, have dropped back. It has got to be a regular thing with them, however. Generally it is conceded that mining shares are in a good position, awaiting only renewed public participation.

Porcupine Crown Has Let Property Flood

Porcupine Crown shareholders are informed of the position of their property in a statement accompanying the annual report. M. W. Summerhayes, who made an examination of the mine, gave the opinion that in the old workings of the mine, the available and profitable bodies had been practically worked out, and that in the meantime they should be allowed to fill with water. After removing all surplus underground equipment the directors of the company, acting on this advice, allowed the workings to fill, first, however, providing for the de-watering of the mine at any time by leaving the necessary pumps and piping in place so that whenever further investigation of the property warranted a reopening of the main levels it could be done.

Canadian Kirkland is Placing Trust Notes

Canadian Kirkland has completed arrangements for the placing of its trust notes at a price that will quickly provide the necessary capital for the resumption of operations on the property. This method of mine finance has been used in England quite a lot but is somewhat new here. The mine is in good shape and the management will, when thought advisable, launch an aggressive program of exploration under a capable and experienced engineer.

Everett Has Cut Stringers and Veins

Everett shareholders are advised that since operations resumed they have been driving a cross-cut towards the contact where veins showed on the surface, and have advanced 143 feet. Several stringers and veins have been cut, but no work has been done on them; the management having decided to advance cross-cutting as rapidly as possible, and later open up veins which have been encountered. Sufficient funds are in the treasury to carry on as outlined.

Castle Mine Nears the Production Stage

Two weeks' time should see underground development resumed at the Castle-Trethewey. When milling starts, the mine will be in splendid shape. A heavy production during the first month or two is looked for as during that time stope preparation work is expected to result in an abnormal production of high-grade ore.

THE IRON ORE REPORT

Since copies of the report of the Ontario Iron Ore Committee have been circulated, praise for the work of the members of that body is being heard on every side. The report is most complete and concise. There is no "pussy footing." The committee stated their conclusions clearly and unhesitatingly.

THE FINANCIAL POST, in the preparation of its iron ore number, made a general survey of the whole district of North Western Ontario and was thus able to better appreciate the value of the report and some of the difficulties which the committee must have experienced in gathering its data.

Scattered throughout the number are many stories, made up of parts of the report embellished and broken up. The desire is to acknowledge the use and helpfulness of the report in preparing this number.

No. 2 Vein of T. O. B. Shows Width of 6 Ft.

The vein recently encountered in the cross-cut east on the 9th level of Tough-Oakes Burnside, believed to be the downward extension of the faulted No. 2 vein of the Tough-Oakes proper, has opened out to a width of six feet and is showing some nice ore. This is the deepest point that the ore has been found in the eastern section.

Shaft sinking has been resumed and the miners are now working at the 930 ft. level. A station will be cut at 1,025 feet depth.

Lake Shore to Handle 300 Tons by April

By April Lake Shore will be treating 300 tons daily, while the end of the year should see the tonnage at 400. The average recovery per ton is expected to drop when the greater amount of ore is handled. It is estimated that mid-summer will see Lake Shore paying dividends on a 20 per cent. basis. Bonus distributions may be added from time to time.

More Power for Mines From Great Northern

The second unit of 2,100 horse power of the Great Northern Power Company of Canada, will soon be in operation. The company is supplying power to Night Hawk Peninsular, Porcupine, Davidson and Newray. The management is in the hands of an engineer of the staff of Nesbitt, Thomson & Co. The company has under consideration the extension of its lines to Kirkland Lake, with a view to increasing its power load, as the company's sites are capable of developing over 15,000 horse power, of which only 4,200 is installed at present.

It is reported that Nesbitt, Thomson & Co. have recently purchased $250,000 7 per cent. short term notes of the company.

Hollinger Makes Good Development Progress

Dealing with Hollinger's reserves, Noah Timmins, president, speaking at the annual meeting, said: "It will be noted that we have largely increased our program as compared with 1922. The figures are 59,688 and 38,601 feet, respectively, an increase of more than 20,000 feet. This has resulted in the augmentation of our ore reserves from $43.269,996 to $56,861,936. To maintain a sufficient tonnage to provide the mill with 8,000 tons of ore per day when all extensions are completed, a substantial addition to this increase will be necessary. I might say, however, that good progress has been made so far.

"This work has been done in preparation for a very material expansion in the scale of operations that has had the attention of the board of management for the past two years."

Canadian Industrial Alcohol, New Listing, Plans Expansion

From Our Own Correspondent.

MONTREAL.—The listing of Canadian Industrial Alcohol stock on the Montreal Stock Exchange came almost simultaneously with the commencement of a broad programme of expansion of the corporation's activities, involving extensions of its plants and additions to the line of products it manufactures.

Canadian Industrial Alcohol is a company that has always been very closely owned and controlled. A year ago it is understood that there were only eleven shareholders. Arrangements were then made to trade in the stock on the unlisted section of the Montreal Stock Exchange, and from early trading around $11 a share the stock rose during the year to $30 a share, near which price it has hovered since the peak was reached. The shareholders' list has been greatly widened, and, while the listing papers submitted to the Montreal Stock Exchange show 263 shareholders, it is understood that there are now about 400 shareholders. The listing of the stock, of course, provides broad facilities for trading, and more and more investors are likely to interest themselves in this stock. The company is at the present time largely controlled by Sir Mortimer Davis and a group of associates.

Canadian Industrial Alcohol Company owns distilleries and plants for the manufacture of industrial alcohol such as its Maple Leaf spirits which are now being widely advertised throughout Canada, chemicals of which alcohol is the chief constituent and various alcoholic beverages which are manufactured for the Canadian and export trade. The company controls a number of ryes, whiskeys gins, brandies, and other liquors.

Program of Enlargement

Just now, Canadian Industrial Alcohol is carrying out quite a program of improvements to its various properties. Extensive reconstruction and expansion is being carried out following the fire suffered by the company at its Corbyville plants some time ago. When completed, the new plant will be one of the largest and most modern industrial alcohol distilling plants in America.

The program includes the erection of buildings and the installation of equipment for the production of Ethyl and Amyl acetates, not heretofore manufactured in Canada. These two products are coming into keen demand for the manufacture of imitation leathers and lacquers, and the demand has in the past been mostly supplied from foreign sources. The company will also instal equipment for the recovery of carbonic acid gas, which is used in large quantities by soft drink manufacturers and soda fountains.

Another feature of the new plant will be the installation of a still of the most modern design with a capacity of 10,000 gallons a day, which will, when completed, be one of the largest units at present in use in any country.

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OTTAWA EVENTS ARE BIG FACTOR IN THE OUTLOOK

(Continued from page 1)

doubled any previous output. The average cash return per farm in Alberta in 1923 was $18 higher than the average for the years 1918, 1919 and 1920, when grain prices were at their peak. The average value of agricultural products in 1923 was $223,814,304, and from 1918 to 1920, $239,039,352; the average number of farms in 1923, 80,000, and from 1918 to 1920, 86,000; while the average per farm in 1923 was $2,797, and from 1918 to 1920, $2,779. These figures, therefore, show that the low prices in 1923 were more than made up by the increase in yield in wheat and coarse grains being more than double the largest previous crop in the province. Value of farm crops and products of mines, forests, and lakes, is put at $258,000,000 for the year.

Labor, East and West

Industrially there is little change. Some plants, like the car shops and other steel works, are busy; cotton textiles are fairly active, but the woollen mills are feeling foreign competition. Lumber mills in B. C. are moderately busy on old contracts, and exports of logs to Japan continue heavy.

Settlement—at least temporarily—of the labor troubles in Cape Breton have led to improved outlook for the mines and steel industry there. However, a fight between miners and owners is looming in Alberta. The men demand a much higher scale than that of the East, and owners say that the industry cannot bear the burden. The strike in the British Columbia lumber camps is being continued, and a demand is being made on Ottawa to curb the activities of I. W. W. agitators from the United States.

Bond interest and dividends for the first three months of the year total $69,118,243, compared witth $65,210,113 for the corresponding period of last year, according to a compilation by THE FINANCIAL POST.

The Canadian National Railways report a profit for January of nearly $500,000, compared with a deficit of nearly $600,000 a year ago. Operating expenses were cut nearly 8 per cent. If this improvement is altogether real it will be well regarded throughout the country, because a curtailment of the railway deficits is a practical method of reducing budget requirements and relieving tax burdens.

Bank clearings have been showing a substantial increase over a year ago, amounting to 7.3 per cent. over all Canadian cities in January; improvement in February has not been quite so marked. Canadian exports increased $117,000,000 during the year ending with January, but imports increased $122,500,000 during the same period.

Timely talks on mining
This feature article in our "Investors' Bulletin" each week has proven extremely interesting to its thousands of readers, supplementing as it does the volume of up-to-the-minute and worth-while news of Northern Ontario's mining camps.
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NEWS OF THE BANKS AND BANKING

THE FARM COW FOUNDATION FOR PRAIRIE SUCCESS

What One Farmer Has Accomplished in Fourteen Years

The following very interesting article on the value of the farm cow in the prosperity of the prairie farmer was written by a correspondent of the Lethbridge Herald, from Enchant, Alta. What mixed farming is doing for Jacob Taylor in the Lone Star district it will do for many other farmers in Western Canada. Bank managers will find in this case a valuable illustration of what a practical energetic farmer can accomplish by making proper use of his opportunities.—J. W. T.

A few weeks ago the Bank of Montreal issued the statement that they were issuing a booklet entitled, "The Cow, the Mother of Prosperity." We sent for one. It is worthy of careful perusal by every farmer. Get one if you have not done so from the bank. It is one of the best things published along the line of mixed farming. The bank is to be congratulated on the distribution.

In connection with this I wish to give you an example of the proof of this method of farming. I called on Mr. and Mrs. Jacob Taylor of the Lone Star district, southeast of here. They gave your correspondent evidence of the truth contained in that booklet. They have won out in this south country in spite of adverse conditions at times. It was good to listen to their story. They were raised in Ontario, then lived a few years in North Dakota, coming here in 1909, arriving on St. Patrick's Day, the 17th of March. They took up a homestead, proved up, and purchased another quarter of land, paying $3,500 for same, in 1917. They have this land practically free of encumbrance, together with a splendid house costing around $3,000, a splendid barn to hold around thirty head of stock and loft to hold some twenty tons of feed, splendid farm equipment, seven horses, twenty head of cattle, engine and feed grinder, a 12-24 La-Crosse engine for threshing; they can plow with the same, but believe horse power the cheaper way. This engine cost $1,600. They have every convenience, and are doing well even at the present time. This property can all be called their own at the present. This has practically all been made on this property since 1909, for when they arrived here, and after putting up their shack, at that time they only had $40 in cash, together with two oxen and two cows and a few implements. One cow was milking. With the other cow and the two oxen the first fifty acres of land were broken that summer.

Now, there have been some good crops during that period, but also some very poor ones. The fact I want to emphasize is this: that Mr. Taylor is a thorough believer in the cow as a means of great support, not only in good times but in adverse times. The first year they sold milk and butter which helped out considerably. They have always stood by the cow as a means of help at all times. The day your correspondent called, a few days before Christmas, they were milking five cows, making thirty pounds of butter each week, and they had on hand forty dollars' worth to be taken to market the next day. Mr. Taylor boosts the cow as a great revenue getter, even when all other things fail. We pass this information on for what it may be worth to others.

Another secret we will let you in on is this, that during all these past dry years Mr. Taylor has never had a failure in raising potatoes. I was struck by the statement, and asked for his secret. Here it is. The plan is to plant fairly deep by plowing in the seed. The seed is prepared by taking off the eyes of the potato where they are thick and throw away, as these produce only small potatoes. Then he takes the part which is left and cuts it so as to leave only one eye in each cut. These cuts are planted three feet apart, one cut to each three feet. Cultivate the land thoroughly. This produces large potatoes, the average being about five large ones, but sometimes many more. You can't get a crop if weeds are allowed to grow.

Mr. Taylor believes in keeping his horses and cows in the stable in cold weather. He further believes that no one should rake Russian thistles and let them fly to the four winds, but they should be burned. He believes in fencing and keeping all his stock at home. He further believes in not doing unnecessary work on the Sabbath day.

Questions for Inquiry by Home Bank Commission

A commission will be appointed by the Federal government to investigate the Home Bank. The questions to be examined include:

(1) Whether in the years 1915, 1916 and 1918 representations were made to the Department of Finance respecting the condition of the Home Bank, and if so, what representations were so made?

(2) Whether if such representations were made a state of affairs was revealed regarding the condition of said bank such as would have justified an investigation under the powers conferred upon the Minister of Finance by Section 56-A of the Bank Act?

(3) What action, if any, was taken by the then Minister of Finance upon such representations as may have been made?

(4) What effect would an audit under Section 56-A of the Bank Act, if made in 1915, 1916 or 1918 have had upon the condition of affairs of the said bank and on the conditions of the depositors?

(5) What was the financial condition of the said Home Bank of Canada in the years 1915, 1916 and 1918 respectively, and what steps, if any, could have been taken by the Government to save the situation?

BANKER URGES GOLD STANDARD RETURN

Says Fate of the British Empire May Depend on its Restoration

EDINBURGH. — Addressing the Bankers' Institute, Sir Charles Addis, a director of the Bank of England and chairman of the Hong Kong and Shanghai Bank, made a strong plea for return of the gold standard as existing before the war. Upon the issue of the conflict which swung round this project, he said, might depend whether Great Britain was to regain her former supremacy as the financial centre of the world, or was to sink to the level of a second class power.

After reviewing the pre-war standard system Sir Charles said the conditions precedent to its restoration were a cessation of Government borrowing, the effective use of the Bank of England's rate of discount and the legal limitation of fiduciary note issues. It could not be too widely known, he said, that such was the official British monetary policy. Dealing with the charge that the official monetary policy was a main cause of the existing trade depression and unemployment and an impediment to recovery, he asked "Has any substantial relation of the nature of cause and effect been established between the currency policy and trade depression?"

At Least $5,000,000 Lost at Head Office

Any hope of shareholders in the Home Bank that realization from assets might offset the double liability claim are disappearing as additional information regarding the affairs of the bank is made public. It has now been declared by G. T. Clarkson, official liquidator, that irrespective of advances, totalling $5,800,000, mentioned in paragraph 9 of his affidavit, and on which he has refused to be examined as to realization, the losses in connection with certain accounts, which he had previously estimated at $4,900,000, will probably be in the neighborhood of from $6,000,000 to $6,250,000. Of this total, Mr. Clarkson gives the opinion that at least $5,000,000 represented losses sustained by the Toronto head office of the bank. Mr. Clarkson explains further that his earlier estimate of losses had been made on a very conservative basis.

Staff Gossip

W. H. Beacon, accountant of the Minburn branch of the Bank of Montreal, is being transferred to Acme.—The Journal, Edmonton.

* * *

N. V. R. Huns, of the Bank of Montreal, has gone to Lethbridge where he will manage the bank there.—The Albertan, Calgary.

* * *

Mr. McLean, manager of the Canadian Bank of Commerce, formerly of Morden, has been transferred to Estevan to take over the local branch, and relieve A. E. Shannon who has been acting manager. —The Progress, Estevan.

* * *

B. D. Henry, accountant in the Peterborough branch of the Royal Bank, has been transferred to Florence, near Sarnia, as manager. C. J. O'Neil, of Oshawa, will succeed Mr. Henry at Peterborough.—The Globe, Toronto.

* * *

C. M. C. Brunton, manager of the Sarnia branch of the Bank of Nova Scotia, has been elected president of the Sarnia Chamber of Commerce at the first meeting of the newly-appointed board of directors. — The Free Press, London.

* * *

H. Green, manager of the Bank of Nova Scotia at Digby, has retired after forty years' service and is succeeded by C. B. Simmons. A. A. Armstrong, late accountant of the Bank of Nova Scotia, Prince William street, will leave shortly to be attached to the inspection staff.—The Globe, St. John.

* * *

C. H. Hartney, manager of the Edmonton branch of the Union Bank of Canada, who has been appointed superintendent of the bank's branches in Manitoba, has been in charge at Edmonton for five years. H. C. McLean, Mr. Hartney's successor, is the present manager of the Union Bank of Canada at Saskatoon.—The Journal, Edmonton.

* * *

Word has been received by J. W. Corning, Victoria manager of the Bank of Nova Scotia, of his transfer to the Ottawa branch of the bank, and he expects to leave shortly. Mr. Corning has been in charge of the Victoria branch since 1918, and his many friends in the Garden City will regret his departure.—The Colonist, Victoria.

* * *

Louis De Guise, one of Montreal's best-known banking officials, and for 28 years manager of the Banque Nationale, Montreal, died in the Notre Dame Hospital during the week after a short illness. He was in his 70th year. He had retired from management of the bank in March, 1922. — The Mail & Empire, Toronto.

* * *

W. C. James, manager of the local branch of the Canadian Bank of Commerce, has been notified of his impending transfer in the service of that institution to take charge of the St. Clair avenue branch in Toronto. It is expected that Mr. James will assume his new duties early in the month of March, being succeeded as manager here by A. W. White, at present manager of the Niagara Falls branch, and formerly of the Gananoque branch.—The Recorder Times, Brockville.

STANDARD BANK MAINTAINS GOOD LIQUID POSITION

Current Loans Reduced and Profits Were Lower

Substantial improvement in the proportion of liquid assets of the Standard Bank of Canada is indicated in the annual statement. An increase of over $750,000 in investments on government securities is largely responsible for this. Total assets, however, show a contraction of slightly more than $9,000,000, which is largely accounted for in a falling off in savings deposits. The reserve fund has been reduced as the result of the readjustment which was made during the year. Current loans are considerably reduced, reflecting industrial conditions and the bank's policy in carefully checking up outstanding credits; the small sum of $674,000 appears for non-current loans under the new provisions of the Bank Act Following are comparative figures from the balance sheet:

IMMEDIATELY AVAILABLE LIQUID ASSETS	1923 $	1922 $	Change $
Specie	1,291,918	1,769,469—	477,551
Dom. notes	8,562,381	9,222,301—	659,920
Note cir. dep.	200,000	200,000	——
Notes, bk.	279,741	311,270—	31,529
Bank bal.	100,000	100,000	
Do., abd.	682,970	625,126+	57,844
Gov. secs.	8,640,829	7,883,503+	757,326
Cheques	3,423,274	3,375,562+	47,712
Gold res.	700,000	1,000,000—	300,000
Call loans ab'd.	——	700,000—	700,000
For. currency	13,157	——+	——
	23,894,270	25,187,231—	1,292,961
% total assets	34.3	32.0+	2.3
% toal liab. to public	38.2	36.2+	2.0
OTHER ASSETS			
Public secs.	2,306,992	2,462,051—	155,059
Other secs.	133,417	1,082,052—	948,635
Call loans	2,984,293	3,376,097—	391,804
Current	35,653,253	42,398,816—	6,745,563
Mortgages	77,670	——+	77,670
Overdue debts	——	125,327—	125,327
Lets. of cred.	130,605	123,820+	6,785
Real estate	323,408	281,540+	41,868
Premises	1,900,026	1,879,023+	21,003
Mun. loans	1,508,657	1,696,989—	188,332
Non-curr. loans	673,934	——+	673,934
Other assets	51,159	106,317—	55,158
	$45,743,415	53,532,033—	7,788,618
Total assets	69,637,685	78,719,264—	9,081,579
LIABILITIES TO PUBLIC			
Circulation	4,580,865	4,653,320—	72,455
Dem. dep.	11,114,922	11,502,065—	387,143
Savings	40,478,339	50,574,795—	10,096,456
Due banks	65,038	688,890—	623,852
Due else.	3,506,152	509,057+	2,997,095
Lets of cred.	130,605	123,820+	6,785
Dep. by banks	671,261	1,356,884—	685,623
Bills payable	415	6,090—	5,675
Other liab.	3,697	3,025+	672
Advances	2,000,000	——+	2,000,000
	62,551,294	69,417,946—	6,866,652
TO SHAREHOLDERS			
Capital	4,000,000	4,000,000	——
Reserve	2,750,000	5,000,000—	2,250,000
Dividends	120,729	140,751—	20,022
Balance	215,662	160,567+	55,095
	7,086,391	9,301,318—	2,214,927
Total liab.	69,637,685	78,719,264—	9,081,579

Considering all the circumstances, the profits of $695,095 compared with $728,074 in the previous year will no doubt be regarded as satisfactory by the shareholders. Dividend requirements were reduced and as shown in the following summary a considerable sum was added to their profit balance:

	1923	1922	1921
Bal. for. . . .	$160,566	$112,492	$ 378,644
Profits	695,095	728,074	725,014
Prem. on stk.	......	......	148,499
	$855,661	$840,566	$1,252,157
Dividends ..	520,000	560,000	555,115
Pensions . ..	25,000	25,000	25,000
Tax res. ...	55,000	55,000	20,000
Reserve . ..	......	......	200,000
Tax on circ.	40,000	40,000	39,550
Contingent .	......	......	300,000
Balance . ..	215,661	160,566	112,492
	$855,661	$840,566	$1,252,157

TEN YEAR RECORD

Year	Earnings	xRate Rest	% on Cap.	Div.
1923	$695,095	10.37	17.37	13
1922	728,074	8.09	18.20	14
1921	725,014	8.05	18.12	14
1920	784,369	9.11	20.63	14
1919	776,310	9.70	22.17	13
1918	697,443	8.71	19.91	13
1917	649,546	8.21	19.08	13
1916	580,230	7.63	17.59	13
1915	563,401	8.04	18.78	13
1914	621,403	9.22	21.28	13

xOn capital and rest.

A Difficult Year

"The year just closed has been one of the most difficult with which not only financial, but also commercial business has had to contend," said Vice-president T. W. Wood, at the annual meeting. "Instead of recording progressive prosperity, the commencement of new enterprises and the extension of existing ones, it has been characterized by contraction and readjustment."

The vice-president stressed the point that the values placed upon the assets, after most careful examination and investigation, not only by the management and officials of the bank, but by a committee of the directors, were most conservative.

Inspection Welcomed

The general manager, Norman L. McLeod, referred to criticisms which have been current regarding alleged extravagances in bank management, and that these criticisms could not fairly be charged to the Standard Bank. On the question of government inspection of banks, the general manager had this to say:

"There has been a persistent agitation in the press for government inspection of banks. This bank has an efficient inspection department that inspects all branches, including the head office, once every year as well as a most reliable auditor who has been untiring in the performance of his duties, but if government inspectors can assist us with our problems, we will welcome this innovation by the government."

EXCHANGE

Dealing with the recent slump in sterling exchange, F. C. Goodenough, chairman of Barclay's Bank, points out that the recent decline cannot be attributed to an equivalent decline in the intrinsic value of the pound. The usual seasonal requirements for dollars has had a greater influence upon the exchange than was usual in the past, because it fell upon a market already restricted by the purchases necessary to provide for the instalment on the British debt to America.

NEW YORK FUNDS

	High	Low	Last Year High	Last Year Low
Feb. 21	3 3-16	3 1-8	1 1-2	1 7-16
Feb. 22	3 7-32	3 3-16	1 9-16	1 1-2
Feb. 23	3 9-32	3 7-32	1 25-32	1 9-16
Feb. 25	3 13-32	3 9-32	1 13-16	1 3-4
Feb. 26	3 1-2	3 13-32	2	1 13-16
Feb. 27	3 7-16	3 9-32	1 13-16	1 11-16

STERLING, FRANCS AND LIRE

	Sterling Demand	Francs Demand	Lire Demand
Feb. 21	4.31⅜	4.22½	4.32
Feb. 22	—	—	—
Feb. 23	4.30¼	4.36½	4.34¾
Feb. 25	4.29½	4.30½	4.33¾
Feb. 26	4.29½	4.25	4.31¾
Feb. 27	4.29½	4.13½	4.29¼

Weekly Bank Clearings

(In comparison with same week last year)

EASTERN CITIES	Feb. 21, 1924	Change	%
Montreal	$86,054,922—	$ 1,121,009	1.3
Toronto	81,788,601—	702,816	.8
Ottawa	5,978,831+	168,307	2.8
Quebec	4,690,848—	357,198	7.1
Hamilton	4,410,276—	436,991	9.0
London	2,999,544+	459,510	18.1
Halifax	2,302,532—	3,462	.1
St. John	2,283,880—	339,678	12.9
Windsor	2,120,308—	217,951	9.3
Kitchener	782,556+	16,201	2.1
Moncton	712,649—	310,115	30.3
Brantford . . .	712,526—	147,055	17.1
Peterboro'	677,698+	128,170	23.3
Sherbrooke. . .	659,077—	169,711	20.5
Kingston	471,047+	10,789	2.3
Total East . .	$196,645,295—	$3,023,009	1.5
WESTERN CITIES	**Feb. 21, 1924**	**Change**	**%**
Winnipeg	$ 34,471,957+	$ 6,010,506	21.1
Vancouver	14,361,953+	2,645,131	21.6
Edmonton	3,786,068+	22,287	.6
Regina	3,067,086+	618,238	20.1
Victoria	2,390,544+	687,637	36.8
Saskatoon	1,364,276+	137,323	11.2
Moose Jaw	1,045,066+	147,414	16.4
Ft. William . ..	657,935—	42,670	6.1
Brandon	496,605+	83,144	20.1
N. Westminster	484,631+	60,529	14.2
Lethbridge	408,624—	32,719	7.4
Pr. Albert . ..	354,866+	58,150	19.6
Med. Hat	304,219+	27,002	9.7
Total West . .	$53,713,830+	$10,321,972	19.3
Grand total ..	$260,359,125+	$ 6,398,963	2.5
Calgary	6,987,920	——	—

The Fifty-Second Annual Meeting
of the Shareholders of
THE HAMILTON PROVIDENT AND LOAN CORPORATION

The Fifty-second Annual Meeting of the Shareholders was held at the Corporation's Head Office, Hamilton, at noon on Monday, February 25th, 1924.

The net profits for the year, after deducting interest on borrowed capital, cost of management, and all other charges, amount to $194,210.34.

Which has been appropriated as follows:—

Two half-yearly Dividends at the rate of ten per cent. per annum	$120,000.00	
Government, Business and War Taxes	20,796.02	$140,796.02
Added to Reserve Fund		50,000.00
Carried to Contingent Fund		3,414.32
		$194,210.34
ASSETS		
Office Premises in Hamilton and Brandon		93,000.00
Real Estate held for sale		59,090.00
Mortgages:—		
Principal	$4,382,536.48	
Interest	218,124.07	4,600,660.55
Loans on Corporation's own Stock		7,461.35
Dominion of Canada and Province of Ontario Securities owned	$185,687.80	
Canadian Municipalities and School District Debentures owned	89,765.65	275,453.45
Cash in Chartered Banks		49,128.96
Cash on hand		12,455.11
		$5,097,249.42
LIABILITIES		
TO THE PUBLIC—		
Debenture Stock	$372,786.66	
Sterling Debentures	538,398.68	
Currency Debentures	501,098.98	
Interest accrued on Debentures	15,965.25	
Savings Deposits	918,552.11	
Provision for Income War Tax and Balances Due Borrowers	43,902.48	
		$2,390,704.11
TO THE SHAREHOLDERS—		
Capital Subscribed, $2,000,000.00		
Capital fully paid	$1,000,000.00	
Capital partially paid	200,000.00	
Reserve Fund	1,400,000.00	
Contingent Fund	46,545.31	
Dividend (payable 2nd January, 1924)	60,000.00	
		$2,706,545.31
		$5,097,249.42
Surplus security for depositors and debenture holders		$2,706,545.11

GEORGE HOPE, President
D. M. CAMERON, General Manager

The Directors were re-elected as follows:—Messrs. George Hope, Henry L. Roberts, W. A. Wood, Stanley Mills, William Hendrie and Donald M. Cameron.

At a subsequent meeting of the Directors, George Hope was re-elected President and Henry L. Roberts, Vice-president.

The Monthly Cheque
— That Never Fails

How the Money was Lost

"You see I had only a few thousand dollars left after the estate was settled—

and my brother borrowed some to help him along; of course *that* went and then—

I simply *had* to help father with his business. he was so worried—

and I thought it best to make an investment at once. Well *that* failed—

and, really, if it were not for the monthly income cheque from the Canada Life I don't know how I should be getting along now."

It is all so simple and effective!

Just a few dollars set aside regularly, and the Canada Life will guarantee to your home a continuous monthly income.

What a relief to know that no matter what may happen, the monthly cheque that never fails, issued regularly by the Canada Life, will come to *your* home!

"Your present Life Insurance will perhaps "clear the mortgage," pay off the obligations of your estate, and leave something for your family, but

Consider This:

Financial problems should not be thrust upon a woman who is not used to business deals.

Therefore in addition to a "lump sum" of money, you should provide a definite *income* that cannot fail—

Because a weekly or monthly income is the natural thing for most people—

And a woman can keep a family together on even a small income, provided it is *regular*.

Moreover, the hands of unscrupulous men are always outstretched for money held by the unwary.

The Monthly Income Plan

Will solve the problem.

Only a few dollars saved and set aside from your regular earnings can be multiplied into a substantial income for your Beneficiary. You will be surprised to learn what a reasonable proposition can be made to you

Ask for Particulars.

Canada Life

Home Office:
TORONTO
Canada

Canada Life Assurance Company

Dear Sirs: Without obligation on my part, you may send me particulars of your Monthly Income Plan.

Name........................
Address........................
Born..........day of..........19....
Beneficiary........................
Born..........day of..........19....

THE FINANCIAL POST

Member of the Audit Bureau of Circulations.

President - - - - JOHN BAYNE MACLEAN
Vice-President - - - - HORACE T. HUNTER
Manager - - - - - - GORDON RUTLEDGE
Editor - - - - - - - - J. W. TYSON

A weekly newspaper, presenting in a popular manner reliable information respecting investments and financial affairs in Canada.

No paid advertising, other than annual reports or official notices of corrections, will be inserted in the news columns unless marked "Advertisement."

Advertising matter which has a tendency to mislead or which does not conform to business integrity, is declined. Acceptances of advertising will not deter the editorial department from making such comments as the situation may suggest.

No material from news bureau sources submitted for editorial purposes will be published, and no such bureau or individual should be paid any consideration or given any credit for the insertion or inspiration of any item.

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SUBSCRIPTION PRICE:

Canada and United States ....$5.00 per annum
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Australia and all other Countries............... 27s. 6d.

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PUBLISHED BY

THE MACLEAN PUBLISHING COMPANY, LIMITED
143-153 University Avenue, Toronto.

MONTREAL, Southam Building, 126 Bleury St., F. S. Chalmers; WINNIPEG, 610 Confederation Life Building, E. H Hawkins; BOSTON, 734 Old South Building, C L. Morton; NEW YORK, Room 1606, St. James Building, 1133 Broadway (Corner 26th Street), A. R. Lowe; CHICAGO, Room 1004, Federal Life Building, 168 North Michigan Boulevard, Phone Dearborn 8694; GREAT BRITAIN—London, The MacLean Co. of Great Britain, Ltd., 88 Fleet Street, E. C., E. J. Dodd, director.

The detailed circulation statement we submit is not our own claim, but the sworn finding of the Audit Bureau of Circulations, the recognized independent authority. THE FINANCIAL POST is the only Canadian financial paper submitting its circulation to the A. B. C. inspection.

THE FINANCIAL POST HAS THE LARGEST PAID CIRCULATION OF ANY CANADIAN FINANCIAL PAPER.

FEBRUARY 29, 1924

Edited for the thinkers of the nation—those people who analyze correctly and draw proper conclusions and who are responsible for the Nation's sound thought on matters political and economic.

MASSEY-HARRIS TO BE LISTED

INTERESTING to the stockholders and to the investment public generally was the intimation at the annual meeting of the Massey-Harris Company by the president that the shares of the company would be listed on the stock exchange. No definite time was mentioned but it was understood that the listing will take place when conditions are more favorable — and early improvement is anticipated.

Massey-Harris has for many years been one of the most important industries in Canada, but little has been known of its affairs by the general investing public. Certain information has been given out at the annual meetings but these meetings have been tiled against any but shareholders, and it has been impressed on these that publicity was not in the company's interests. Now there has been a distinct change in the policy. Not only is this indicated in the announcement regarding listing, but the latest annual statement was made available to the press and the public.

President Massey, General Manager Bradshaw and the other members of the board are to be congratulated upon this new progressive policy. By listing the shares there will at once be provided for shareholders and investors a reliable trading market, while the publicity obtained through daily market quotations and through a general knowledge of the company's affairs will be a distinct asset not only in keeping the name of the company before the public but in justifying its price policy. The dissemination of information from the company's annual report should go a long way in educating buyers of farm implements to the fact that the prices paid by the consumer in recent years and now prevailing cover a very small margin of profit—a profit, in fact, not really large enough to insure the stability of a concern which is manufacturing equipment absolutely essential to agricultural operations.

Big business should have the confidence of investors and of the public, and the new policy of the Massey-Harris Company is based on the experience of practically all successful industrial corporations of national importance.

U. S. AS FUTURE CONSUMER OF OUR WHEAT

THE disclosures arising out of the investigation of the United States Tariff Commission of relative costs of producing wheat in the United States and Canada, indicate that the Canadian farmer can produce wheat far more cheaply than can the farmer in the United States. Larger yields per acre, lower taxation and lower freight rates, resulted, in the year 1923, in the Canadian farmer being able to produce a bushel of wheat for 46 cents less than the United States farmer.

It was shown that on an eleven year average the production cost of a bushel of wheat in the United States was $1.58 as against $1.22 in Canada and that in 1923, while it cost the United States farmer $1.49 to produce a bushel of wheat the Canadian farmer was able to produce it for $1.03. Canadian farmers can get their wheat to its outlet very much more cheaply than can United States farmers. The average cost of wheat transportation in the United States is 1 cent. for 37 miles while in Canada a bushel can be carried for 66 miles for the same cent. The average price of all land both cultivated and uncultivated in the United States is 69.38 per acre, whereas the average price of farm land actually occupied in Canada is but $40 per acre over the entire Dominion. The average price of land devoted to wheat growing in the United States is $92 per acre and in Canada $43 per acre. The yield per acre in recent years has been higher in Canada than in the United States.

Looking to the future of Canadian agriculture the figures are encouraging as illustrating Canada's ability to compete in the wheat and flour markets of the world. But they are perhaps even more significant as indicating that wheat production is being discouraged in the United States by economic conditions and that country, with its increasing population, will, before many years, become an importer rather than an exporter of wheat and flour, and a big market for the Canadian farmer.

FALLACY OF STRESSING PRICE ON QUALITY GOODS

THE story is told of a certain manufacturer who decided to go into the foreign field. The article that he produced was a type of patented knife. The chief selling points in marketing this knife abroad should have been the quality of steel in the knife, which virtually gave it a guaranty of long and hard service, and its attractive appearance. At the same time the selling price of the knife, because of certain special conditions of production, was such that the manufacturer was able to undersell knives of similar design (and used for similar purposes) put out by manufacturers of several foreign nations. The manufacturer, therefore, instead of mentioning the price as merely an added reason for purchase and stressing the quality features, chose to base his entire selling campaign on the low price of his article. By these methods he obtained a large foreign business. However, after several years, through a number of unforeseen circumstances, the manufacturer was forced to raise the selling price of his knife until it reached a point slightly higher than the knives of similar design offered by his competitors. The inevitable happened. His customers abroad, because they had been "sold" on a price basis and had not been taught to recognize anything favorable about the knife except its price, immediately turned to his competitors.

This analogy applies to nations as well as men. Certain nations have let themselves become known in the eyes of the world as countries which produce many articles of indifferent quality and low price. In their attempts to capture foreign trade and dominate foreign markets they have always put a premium on the price factor. This has been particularly marked since the war, when depreciated currencies have allowed them to undersell consistently the better grade commodities of other nations. Those who were fully aware of the artificial foundation of merchandising methods such as these knew that such a condition was bound to be temporary. And so it has been. To-day, in an increasing number of products, these countries can no longer undersell. The result is that importers abroad who formerly bought their goods in the countries in question are now seeking to buy products of reliable quality. If Canadian manufacturers of such articles will, in selling these, place the emphasis on quality and service rather than on price they will stand a good chance of making permanent customers of many importers who formerly bought goods elsewhere.

GIVE CONVALESCENT BUSINESS A CHANCE

IN AGREEMENT with the contention of THE FINANCIAL POST that "we need a rest from industrial troubles and political uprisings," is the statement of F. C. Goodenough, chairman of Barclays Bank, at the annual meeting that "no great changes are needed and that gradual improvement in trade can best be encouraged by avoiding all violent alterations in all matters affecting the commerce of the country."

The members of the League of Industrial Democracy in the University of Toronto would no doubt disagree violently with Mr. Goodenough as they have disagreed with THE POST. They would try a lot of new cures on the convalescing patient.

NO NEED FOR POLITICS IN UNIVERSITY

A CONSERVATIVE CLUB and a Liberal Club have been organized in Toronto University. It is significant that these clubs have been formed following the revelations of the organization of a University branch of the League for Industrial Democracy.

The action of the old-line parties in endeavoring to head off the activities of the radicals in the undermining of political standards is to be commended. But we seriously question whether the parents of the students who pay the tuition fees, or the taxpayers of the province who contribute to the upkeep of the university think it necessary that the university life should embrace political activities of this kind.

There is plenty of room in the University for the study of the science of sound administration and financing of public business without lining the students up as Liberals or Conservatives, radicals or reactionaries, communists or constitutionalists.

THE WEST CAN WELL LOOK BACK

RECENTLY THE FINANCIAL POST referred to the dark days which were faced in the earlier history of Ontario by the pioneer farmers who won through by hard work and high courage. Similarly in the earlier days in Western Canada the pioneers passed through much greater difficulties than are facing the farmers of to-day. C. W. Rowley, Western superintendent of the Canadian Bank of Commerce, tells:

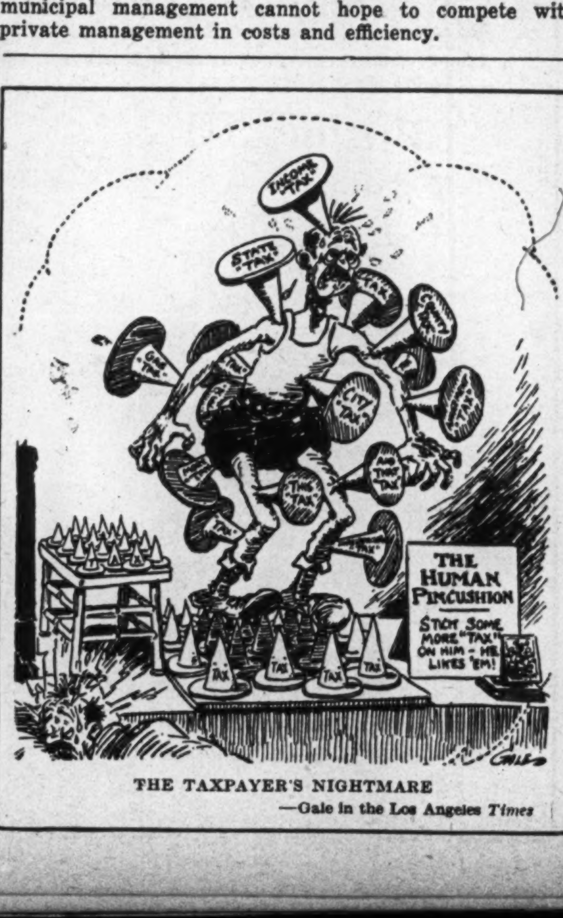
> "Recently I had the pleasure of meeting at luncheon Robert Forke, M.P.; Samuel Larcombe, of Birtle; John R. Dutton of Gilbert Plains; Major Strange, of Fenn, Alberta, and had a chat with R. A. Hoey, M.P. Four of the five came from England and one from Scotland, and the first three came to this country over 40 years ago. These men and their wives and many others like them, with no experiences as farmers, no reserve funds, no knowledge to fight the elements in a new country, lacking encouragement and aid, transportation facilities and markets, without co-operative societies, farmers' unions, rural mail delivery or telephones, came and hewed out homes for themselves and their families, and are now among the most prosperous and respected citizens."

The confidence in Western Canada to work out its future is the confidence felt in the great majority of the farmers to solve their problems and adjust their affairs to prevailing conditions—it ignores the political and other agitators who are calling on the government to try all sorts of paternalistic experiments in an attempt to avoid the inevitable. As in the earlier days of Ontario and of the Western provinces themselves, the present problems of the West will be solved primarily by hard work and sound business methods.

SHAREHOLDERS of the Grand Trunk are using space in the Canadian press to put before the Canadian public their claims for compensation in regard to their shares in the railroad. Had the Canadian Government followed an equally intelligent course in putting the case for Canada in regard to the Grand Trunk controversy before the British public, the issue would never have been seriously considered.

• • • •

REALIZING that under the sixty-cents-an-hour, eight-hour-day standard of the City Hall for civic employees it would be impossible for Toronto to operate a ferry service without heavy loss, the council has wisely made an arrangement with a private company for operation. But think of the council setting a standard for workers and then encouraging others to try to set a lower standard, at the same time making an open acknowledgment that municipal management cannot hope to compete with private management in costs and efficiency.

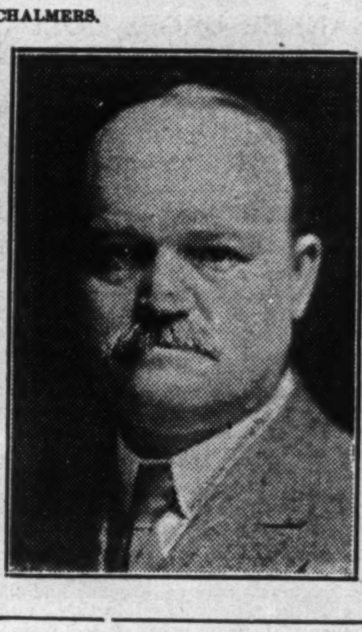


THE TAXPAYER'S NIGHTMARE
—Gale in the Los Angeles *Times*

The Printer's Devil Who Built Four Big, Successful Companies

Samuel J. Moore Erected Salesbook Industry Around a Clerk's Idea and Silverware Industry Around a Souvenir Spoon—Paper Boxes and Milk Also

By FLOYD S. CHALMERS.



At the present time United States magazines are carrying a series of advertisments heralding the fortieth anniversary of the founding of the counter sales book industry, and extolling the work of the man who made the industry what it is to-day. The real significance to Canadians of this advertising should not be lost; it is a tribute to a man who built an industry of continent-wide proportions; no, who has built up three separate industries of continent-wide proportions and yet who has never lost his Canadian citizenship, and who, to-day from a desk in the city of Toronto directs the operation of factories that stretch from Massachusetts to Ontario, and from Ontario to California This is a record that is almost unique in Canadian-American business history.

This man is Samuel J. Moore, one of the greatest, and also one of the least known of Canadian industrial captains. He is the head of the American Salesbook Company, the world's largest manufacturer of sales books; he is head of the F. N. Burt Company which is the world's largest manufacturer of small paper boxes; he is head of the William A. Rogers Company, a successful silverware manufacturing company; he was once directing head and is still chairman of the board of the City Dairy Company the largest distributor of milk in the British Empire. And in the course of building up these and associated enterprises he has found time to be president of a bank for a long term of years and to be so active in missionary and Sunday School work as to have been chosen president of the World Sunday School Conference.

Comes Out From England

That is where he is to-day. When he first saw Canada he was a young British immigrant lad who settled with his parents in Barrie, Ontario and went right to work to help keep the family on its feet. He began his business career as printer's devil on the Barrie Examiner. This was in 1871 when he was twelve years old.

Young Sam Moore did not for long remain a printer's devil, scraping out the hell-box. He soon was set out to round up stray bits of local gossip. and, in a few years, was given the impressive title of local editor, but without an equally impressive salary check each week.

Printer's spirit seized him, and he wandered as far away from Canada as Texas. But in 1879, when he was twenty years old, he came back to Canada, and Canada has claimed him as a resident ever since. Returning to Toronto, he went into partnership with the Bengough brothers as a printer and publisher. One of their jobs was to publish the "Grip," that famous sheet which was a political power in the early days of Canada; that made and unmade governments by the power of the cartooning pen of J. W. Bengough, and which had equal force from the editorials that rolled from the pen of Editor S. Moore.

He Meets John R. Carter

It was while he was editing and printing "Grip" that the young publisher walked into the store of John Catto and Company. Here he began to talk to one of the clerks, a chap named John R. Carter. Carter showed him a little idea he had worked out for a counter sales book that would standardize sales slips, make records and serve similar advantageous purposes. Moore saw the possibilities in the check book, and in order to get the job or printing it he formed a little syndicate that scurried around and dug up $2,500 to take over Carter's device and start its manufacture. That was the beginning of the counter cheque book industry. To-day millions of retail store clerks are daily using similar counter cheques in recording sales.

A little later the Carter-Crume Company was organized. Crume was the name of another partner who was brought in because he suggested improvements in the check book. But from the first it was Moore who was the financial, selling and operating genius of the company. It was typical of his entire business career that his own name did not go into the name of the company. It never went into any of his companies, and the term "Moore Group" applied to his companies is but stock market parlance.

Big Market In States

Mr. Moore saw that Canada was but a small field of operations for the manufacture of a device that could find ten times the market in the United States that Canada could offer. So he went to Niagara Falls and established a factory there. But he never moved his home across the line. He kept his home in Canada; as one of his associates has put it in talking to me of Mr. Moore: "He was always a red-hot Britisher, and he wouldn't live outside of Canada."

He lived in a room in a Niagara Falls Hotel, when he was in Niagara Falls. For many years he continued to spend more time in Niagara Falls and Buffalo than anywhere else, although he travelled all over the continent in connection with his business. For many years Mr. Moore averaged 50,000 miles of business travel every year and kept it up until but a short time ago. Yet in all his traveling he never got out of touch with his interests in Toronto. He was teacher of a Sunday school class in the Dovercourt Road Baptist Church, and if ever he was within a night's journey of Toronto he came home at the week end to teach that class. For years he practically lived across the line, but spent every Sunday in Toronto teaching his bible class. It is no mere coincidence that practically every young man who came under his influence on Sunday became a truly successful man in after life.

Forms American Salesbook

So he built up the salesbook industry, eventually consolidating most of the companies in the business in one large corporation, the American Salesbook Corporation, which manufactures its product in two large factories, and which has a distributing organization covering the United States. It does not manufacture or sell in Canada because another of Mr. Moore's companies handles the business in this country, as we shall see.

While he was working at and out of Niagara Falls, building up the sales book business, Mr. Moore met a young chap who was selling silver spoons as souvenirs. The young man had a novel idea; one that was ahead of the old idea of selling the tourist a miniature birch-bark canoe, or a pair of moccasins. This young man, who was a brilliant salesman and had certain distributing connections in silverware, but who lacked both administrative experience and capital, was William A. Rogers. Mr. Moore proceeded to establish a department of the Carter-Crume Company to manufacture a thousand silver souvenir spoons with pictures of Niagara Falls on them, and he induced Rogers to undertake the selling of the spoons. But the department grew into a separate business, and in 1893 Mr. Moore formed the Niagara Silver Company. In 1901 this was amalgamated with various silver companies in Massachusetts and Connecticut to form William A. Rogers Limited. Again a sucessful company was launched in which Mr. Moore was to remain the directing force and active head, but which was named after an associate rather than the founder. This company has also been exceptionally successful under the guiding influence of S. J. Moore, and, to-day operates four large factories. It has, in addition, a Canadian subsidiary with a fifth factory.

Two important companies it would seem would be enough to engage the attention of a man who was not a mere presiding officer at directors' meeting, but the hard-working executive head of each. But two were not enough for Mr. Moore. He discovered F. N. Burt at Buffalo, a manufacturer of paper boxes, in a position where he could expand with the investment of capital and management. Mr. Moore incorporated a company under Canadian laws, and, with head office in Toronto, took over the Burt business. For a third time the company was given the name of Mr. Moore's associate, and it became the F. N. Burt Company, Limited.

In working out the Canadian connections of this company, Mr. Moore showed the real magnanimity of his character. The Carter-Crume Company in Canada was struggling along. There was not a wide enough market for its product to insure profitable operations. The shareholders were getting but little return, while the Carter-Crume Company in the United States was flourishing. When F. N. Burt Company extended its operations in Canada, and took over paper-box and other factories in this country Mr. Moore brought the Carter-Crume Company into the merger, using that organization to purchase the other factories. He might have carried out the transaction personally. The inclusion of the Carter-Crume Company made a cool quarter of a million dollars profit for the shareholders of that company that Mr. Moore might have had to put in his own pocket. and which nine business men out of ten would have considered as their own. But he wanted to do something big and fair for the Carter-Crume Company.

It Is a Big Company

In the F. N. Burt Company Mr. Moore built up his third great interest, and the company ranks to-day as the world's largest manufacturer of small paper boxes. It has three big plants in the United States and two in Canada. the Canadian factories running the sales book end of the Moore business as well as the paper box business.

The three American plants are at Buffalo, and the general manager is a woman. She is one of the few women in the world who is successfully managing a giant industrial enterprise. Miss Mary Cass just grew up in the business and Mr. Moore allowed her to climb as high as she wanted to, without holding her back because it was not the customary thing to have a woman as general manager of three paper box factories.

But there were other Moore activities as well. City Dairy Company, which supplies many Toronto homes with their morning milk and cream, is to some extent a product of Mr. Moore's efforts, though not to the same extent as the other three companies. City Dairy Company was a "rich man's hobby" at first. It was founded by one of the Masseys, who owned a beautiful stock farm on the eastern outskirts of Toronto, and one day conceived the idealistic purpose of supplying Toronto people with pure milk at reasonable prices, something they had not been getting before. It was an excellent aim, but it had the weakness of not being based upon sound business principles. It was a losing proposition, and the owner was willing to lose money because the dairy was a hobby.

Putting Company on its Feet

Mr. Moore became interested and decided that the whole scheme would have to be put on a business basis. Mr. Massey and several others interested in the proposition objected. They were not out for money but to do a good work.

Mr. Moore stood up at a directors' meeting and flung down this ultimatum: "It is no use arguing the matter, gentlemen. We are going to run this as a business, and I am going to keep you here all day if necessary to make you decide."

They had to give in to Moore. He reorganized the company, experimented until the proper methods of distributing milk were found, tried out men until he had the right man to make a success of the enterprise and finally had City Dairy not only supplying milk, but vastly more milk than Massey had ever dreamed of. A few years ago Mr. Moore dropped actively out of City Dairy, but he is still chairman of the board. To-day, the company supplies milk to 52,000 Toronto homes, and is the largest organization of its kind in the British Empire.

In addition to these various activities, Mr. Moore has never dropped his church work, and he found time as well to be president of the Metropolitan Bank, from its inception until it was taken over by the Bank of Nova Scotia.

It meant hard work. Mr. Moore all his life has worked long hours a day and covered two countries with seven league business boots. He has had to bring an alert mind to play upon the questions of policy and practice. He has had to keep his plans and thoughts far in advance of the matters immediately before him. He has had to analyze carefully.

No quality in Mr. Moore's character has gone further in making his great achievements possible than his faculty of inspiring not only the enthusiasm, but the industry of the young men he has chosen for his companies. They battle hard for Mr. Moore.

Every one of them has faith in Mr. Moore, not only in his business ability and judgment, but in his absolute honesty and squareness. There was one of the employees who had made a mistake and was sent to jail. When he came back, Mr. Moore hunted him up and gave him a job. He made good and became one of the successful men in that group of companies. Typical of Mr. Moore's methods was a generous bonus to the members of his staff last Christmas.

Trains Men Under Him

The charge is often heard that Mr. Moore has built up a group of "one man" companies; that if he were gone the fabric would be shattered. It is true that Mr. Moore's loss would be felt, but it is far from true that he has made the mistake of leaving his organizations unprotected against the shock of his passing out of their affairs. It may have been true in the early days, when each company was in the formative stage, but it is not true to-day. One of Canada's biggest financial men said to me: "I know of no company or group of companies that is better organized to continue in the absence of any single factor. Mr. Moore has trained a man for every job."

Is there opportunity in Canada for the young man? Read the answer in the record of Samuel J. Moore. He followed the old copybook maxims; worked hard, was honest in every little detail, lived a life of service and kept on looking forward. He stayed in Canada against every temptation to go elsewhere, and became one of the first of Canada's industrial leaders.

PERSONAL

CHARLES EAGER STEWART, whose death took place at Woodstock this week, was president and general manager of the James Stewart Manufacturing Company, stove makers. Born in Hamilton in 1863 he began his commercial career with the firm of Wood, Vallance & Company, hardware merchants, in that city, and later became associated with the firm of Hames, Stewart & Company. In 1892, when the company moved to Woodstock, and established its factory there, he moved to that city where he has since resided.

W. A. DAVIDSON, superintendent of the Rosedale Coal Company, Limited, whose death resulted from an accident at the mine on February 15, was born at Peterborough, Ont., in 1877, and had a distinguished professional career. He was a graduate in the department of mechanical engineering from McGill University, where he obtained his M.Sc. degree. After serving some years with the Dominion Coal Company he went west, and was for a considerable period engaged as mining engineer with the West Canadian Collieries at Bellevue and Lille, in the Crow's Nest Pass in Alberta, and for eight years he was with the International Coal and Coke Company, first as mining engineer and later as mine manager. When the Alberta Government organized the Institute of Technology in Calgary in 1916, it chose Mr. Davidson as head of the department of mining and supervisor of technical instruction in mining for the province. In 1920 he became superintendent of the Rosedale Coal Company and retained that position until his death.

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INVESTORS' INQUIRIES

Questions of general interest submitted by subscribers of The Financial Post will be answered in this column, in which case only initials will be used. Other inquiries will be answered by mail. A three-cent stamp should be enclosed to cover a direct reply.

MAPLE LEAF MILLING

Broker, Montreal.—Would be glad to have latest definite information as to the capacity of the mills of the Maple Leaf Milling Company, Ltd.

Latest information available from the Maple Leaf Milling Company is that the total capacity of the various mills is now 25,000 barrels daily. The number of elevators in Western Canada is 57, with elevator capacity of 4,350,000 bushels. The capacity of the Port Colborne mill is 14,000 barrels per day.

FIRE PREMIUMS DEFINITE

Merchant, Alberta.—Will you kindly inform me whether the Canadian Hardware & Implement Underwriters' Agency is perfectly safe to insure with? Whether there is any probability of a policyholder being called upon to pay an assessment in addition to his premium as stated in the policy, or whether he could be compelled to pay his share of any deficiency that might occur? Whether a policyholder is liable to be compelled to pay assessments even years after dropping the insurance? Would a policy with this company be any less safe or desirable than one with a strong stock company?

The Canadian Hardware and Implement Underwriters' Agency acts as a selling agency for free American fire insurance companies doing business in Canada. The companies operate in Canada under a Dominion charter, and are subject to the regulations of the insurance department. You are not liable for any other call than the actual premium paid for your insurance. The policy of the organization is to return part of this premium from time to time as the business admits. Of course, there is no guarantee how great the profits may be, but so far they have been highly satisfactory. The association is endorsed by the Ontario Retail Hardware Association, and the Manitoba Retail Merchants' Association.

CANADA TEXTILE

Inquirer, Ste. Anne de la Perade.—I enclose a prospectus concerning the Canadian Textile Co., which is contemplating the opening of a woollen mill in this place. As we are not at all aware of the possible financial success of such a company, operating in that line, we would much appreciate your courtesy in giving us your opinion on that matter, as you are in a position to know pretty well the conditions under which such an industry could operate and whether there is a shortage or overproduction in that line of business at the present time.

Speaking generally it may be pointed out that the woollen textile industry in Canada has not been in a prosperous condition during the past few years. The industry was originally built on the foundations of a protective tariff which has since been revised to such an extent that British and foreign textiles come into Canada in competition with the Canadian textiles at prices that the Canadian mills cannot reach. Thus even large and important woollen textile companies have had serious financial difficulties to contend with. It might be even more difficult for a small and new company in the field to compete under these conditions.

Evidently the Canadian Textile Co. is purchasing its plant and machinery at a very low figure and, given an expert management and close attention to costs, it might be able to establish itself in a degree that would permit it to earn something on its capital which is authorized at only a small figure, but the company's future must be regarded as quite speculative.

NORTH-WESTERN LIFE

Investor, Moose Jaw.—Will you kindly advise me of the value of the stock of the Northwestern Life Assurance Co., of Winnipeg? What are its prospects? Is the management reliable? Is the company safe to insure with?

The North-Western Life Assurance Company commenced business in April, 1916, and operates under a provincial license in Manitoba. At the end of 1922, the company had assets of $1,019,053, according to the report of the superintendent of insurance. The total liabilities were $813,317, leaving capital stock paid up of $184,805, and a surplus of $20,931. The company makes the necessary deposits and provides the required reserve for the insurance department and is safe to insure with.

Life insurance stock is not an investment to be secured by any one who may be required to sell at short notice. On the other hand, stock in a successful company ultimately becomes very valuable. The future value of the stock in this company will depend largely on its success in securing insurance, and in building up sound assets. The ultimate returns may be highly satisfactory to shareholders, but, of course, it will be some years before any substantial returns may be expected. The management has had considerable experience in the field. We do not know of any sales of the stock recently, so we cannot quote a price.

KEEP UP YOUR POLICY

Doctor, Welland.—I am carrying $14,000 life insurance with the Dominion Life Assurance Co., of Waterloo, plan, ordinary life, participating, 20 year settlement. Three annual premiums have ben paid and fourth is about due. I am informed that the Metropolitan Life Insurance Co. are offering an ordinary life policy with yearly profit return which is superior to that of the Dominion Life; and I am being urged to make the change. I would appreciate your advice as to which is the better plan. I am a married man with a fair practice in my profession and in a position to meet premium obligations.

Both the Dominion Life and the Metropolitan Life are good companies to insure with. The Metropolitan Life policy is a good one, but we would not advise you to drop your insurance in the Dominion Life if it is possible to avoid it. In dropping insurance, a policyholder must stand a loss through the expense commission, etc., which the company has paid in placing the policy on its books. Moreover, the Dominion Life is a sound company, and its profits to policyholders are very attractive. There is no guarantee, of course, what the profits on participating policies will be two years from now in either of these companies, but there is every possibility that they will increase substantially. Any agent who encourages you to drop a policy in a good sound company, is not working in your interests, or those of the insurance business in general. Should you be adding to your insurance, the Metropolitan Life policy might be considered. If you desire your profits annually you might approach the Dominion Life to change your policy to one paying dividends yearly.

CANADIAN GUARANTY TRUST

Subscriber, Preston.—Some years ago I subscribed for 20 shares in the Canadian Guaranty Trust Co., of Brandon, on which 40 per cent. of amount subscribed has been called. The company was organized in 1909 and the last call was made in 1919. The directors are now making another call of 10 per cent. My opinions of the West and its people have changed somewhat since 1909, due to the fact that so many sections have fallen down on their interest payments on debentures, etc., and in fact treat their debts with indifference. I am therefore just a little dubious about investing any more money in that country. Do you know anything regarding the calibre of the directors of this company? Would you advise me to sell my interest or continue paying calls as they are made?

The Canadian Guaranty Trust Co. is a comparatively small institution and has faced rather difficult times. Conditions have no doubt been aggravated by unsatisfactory crops this year in its territory. The management is regarded as conservative and we believe the company's position is sound. There seems to be more confidence in the Western situation generally but, of course, there is no saying how individual companies may be affected. Our information is that the decision to discontinue the dividends and make another call on the shareholders is a precautionary one with the idea of keeping the company's affairs in good working shape.

Under all the circumstances we think you would be advised at this time to pay the call being made if at all convenient to do so. The only alternative would be evidently to sell your stock and it is doubtful if you could make a satisfactory transaction at this time.

SAGUENAY PULP BONDS

B. T., New York.—Being a bond holder of the Saguenay Pulp and Power Company, and owing to the actual difficulties of its affiliated companies, it would interest me very much to have your straight and valuable opinion on the security of these bonds which are part of the issue of $5,500,000, of 1919. Has the full amount of $5,500,000 been really sold out at the time? If not, how much is still held at collateral in any bank? For what purpose were the proceeds of the sale of those bonds utilized? What does the real assets of this company consist of?

The security behind the Saguenay Pulp and Power Company's $5,500,000 issue consists of $6,625,000 of first mortgage bonds of various subsidiary enterprises of the corporation, and $10,621,000 par value of preferred and ordinary shares. The issue cannot be considered as a first mortgage upon the assets, and properties of the corporation, but despite the complex nature of the security, the bonds rank almost as a first charge against the various assets.

They have not been selling at very high levels in the market, but the company should be able to redeem these issues. It has been up against very serious difficulties, and it is by no means a certainty that a reorganization can be avoided. But in any reorganization the rights of the bond holders could not be disregarded. This is not an issue that we would recommend to an investor, yet, on the other hand, it is not an issue that we would recommend the present holders to sell at a loss.

The issue was originally sold to consolidate in one block of bonds the various bond issues of the smaller companies which were owned by the Saguenay Pulp and Power Company. The money that was raised was used to recoup the working capital position of the Saguenay Pulp and Power Company to some extent. The entire issue was underwritten and sold.

NEW QUEBEC COMPANIES

Quebec has officially gazetted 13 new mining companies. Rouyn Gold Mines, capital $3,000,000 and Lepine Gold Mines, capital $2,000,000, are the biggest.

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British Empire Steel Has Good Earning Power, Report Shows

Figures Disappoint Many But Indicate Preferred Dividends Were All Earned—This, However, After Small Depreciation Charge

MONTREAL. — British Empire Steel's statement for 1923 is the first statement to be issued by that corporation since its formation, that is, based upon the company's actual earnings over a twelve-month period. The first statement, for 1921, covered but a partial year of operations. The second statement, for 1922, included in earnings $4,000,000 of special income from the Dominion government representing the final payment on account of the company's claim against the government for the cancellation of an important contract, and of the $4,000,000, one-half, or $2,000,000, was devoted to special depreciation account. The 1923 statement, however is for a full twelve months, and contains no such special accounts.

Depreciation Charge Smaller

Many shareholders are pleased that the company did as well as it did; earned the dividends on the preferred shares of the constituent companies, and the dividend on the equivalent first preferred shares of the corporation itself. This was done with a very small margin—amounting to $6,833. But on the other hand earnings did not come up to early forecasts, which had been based upon information from quarters very close to the company. The investment public had been led to expect that earnings would show something—perhaps about five per cent.—earned towards second preferred dividends after writing off about $1,500,000 for depreciation. As it was, depreciation amounted to only $1,112,515, as against $1,627,800 charged out of the 1922 earnings. And even after charging up $500,000 less for depreciation than in the previous year first preferred dividends were barely earned. This was a more disappointing showing than was expected.

On the whole, however, the report indicates decided progress, for in the previous year the corporation did not even earn its bond interest. When strike conditions are considered, the report must be considered as having indicated large earning powers for Besco.

Following is a comparison of earnings and disbursements during the three years of the corporation's history:

	1923	1922	‡1921
Income	$4,444,346	x$6,917,275	$4,416,451
Depr. and S. F.	1,112,515	3,627,799	1,501,178
Balance	3,331,831	3,289,476	2,915,273
Bond int.	1,978,474	1,676,906	1,181,682
Net inc.	1,353,357	1,612,570	1,733,591
†Pfd. div.	1,346,524	1,344,299	977,664
Surplus	6,833	268,271	755,927
Prev. sur.	1,024,198	755,927	......
Total	$1,031,031	$1,024,198	$ 755,927

xIncluding $4,000,000, being balance of amounts received in settlement of claims against government for cancellation of contract for ship plates.

†Preference dividends paid and accrued, being dividends on first preference stock of British Empire Steel Corporation, Ltd., and on the preferred stocks of constituent and subsidiary companies.

‡Period from April 16 to December 31, 1921.

On Another Basis

To give a clearer idea of actual improvement in earning power the $4,000,000 in 1922 earnings should be deducted and $2,000,000 of depreciation should also be deducted to give the following comparison of earnings:

	1923	1922	1921
Income	$4,444,346	$2,917,275	$4,416,451
Depr. and S. F.	1,112,515	1,627,799	1,501,178
Balance	$3,331,831	$1,289,476	$2,915,273
Bond int.	1,978,474	1,676,906	1,181,682
Net inc.	$1,353,357	x$ 387,430	$1,733,591
Pfd. div.	1,346,524	1,344,299	977,664
Surplus	6,833	x$1,731,729	$ 755,927

x Deficit.

Working Capital Lower

The company's working capital position showed a decline during the year, but President Roy M. Wolvin explains that at the close of the 1922 fiscal year there was a large amount of cash that had been received in December from the sale of bonds which has since been disbursed, the greater part passing from current to fixed assets. Cash position is fair for the combined accounts receivable and cash items reach $6,045,775, and exceed the aggregate obligations of the corporations for bank loans, accounts payable, accrued dividends on bonds, and accrued dividends on first preference, and preferred stocks, by $1,437,406, or more than 30 per cent.

Working capital position compares as follows:

	1923	1922	1921
Cur. assets—	$21,152,933	$22,647,378	$23,016,761
Cur. liabs.—	4,348,202	4,858,329	8,651,901
Net wkg. cap.—	$16,804,731	$17,789,049	$14,364,860

Additions to Properties

Rather extensive improvements were made during the year to the properties of the corporation, representing no broad developments, but bringing the plants and mines to a higher state of efficiency. Expenditures on capital account amounted to $2,293,418, and as $1,012,706 was charged to depreciation, the net increase in the cost of the properties of the various companies in the organization amounted to $1,280,712, and bringing the total net cost of these properties to $134,201,384. This is after deduction of the depreciation, depletion and renewal reserves of $28,023,102. Considering the extensive nature of the properties and the large amount that must be spent upon them to bring them into close-geared working order as a highly-efficient ensemble, the charging of little more than a million dollars of depreciation to earnings during the year can hardly be considered as a bold step. To the outside observer the sum seems wholly inadequate, especially when it is estimated by those who have studied the plants that as much as $15,000,000 could well be spent in making a truly efficient world-competing organization out of Besco.

Security for Bond Issues

Against these properties there are funded and mortgage debts of $37,800,265, or about 20 per cent. of the net cost, as shown on the corporation's books. During the year the bonded debt increased by $1,154,774. There was sold an issue of $1,660,000 of Cumberland Railway and Coal Company bonds, and through the operation of the sinking fund, bonds to a par value of $505,226 were redeemed.

Analysis of the balance sheet seems to indicate that the cost of properties, the aggregate value of which is said to be supported by independent appraisals, plus net liquid assets, amounts to nearly four times the total amount of bonds outstanding.

Commenting on the year's business the president, Roy M. Wolvin, has this to say in part:

"The results of the operations of the constituent companies were more satisfactory in every way than they were in the previous year. The output of coal was increased 857,325 tons. This increase was general and not confined to any particular operation. A considerable part was due to greater activity in the iron and steel trade.

"This was an advantage to the coal business in two ways. The increased output had a favorable influence on cost of production and the use of slack coal by the steel works furnished the companies with an outlet for any surplus of that grade which they had to dispose of.

"Domestic business in iron and steel though greater in volume than in the previous year was still unsatisfactory both in volume and results. Competition with imported commodities is more difficult to meet than formerly when the customs duties afforded greater protection to Canadian producers.

"Owing to the occupation of the Ruhr by France early in the year, shipments of ore to Germany were greatly reduced. Some sales were made in the United States and Great Britain, but the shipments for the season did not exhaust the tonnage mined for export in the early part of the year.

"A considerable trade in wire and wire nails was done with Australia and New Zealand where the corporation has some advantage in the way of transportation and preferential duties."

CURRENT OPINION

WHAT INDUSTRY MEANS

Ottawa Journal

The annual report of the Massey-Harris Company for the year 1923 should make interesting reading for those good people who brand everybody in industry as plutocratic profiteers. Briefly, the report shows that the income of the company, including profits realized from sale of timber lands, amounted to $1,120,937. Interest absorbed, $616,087; depreciation, $174,708; appropriation for possible losses on receivables, $238,308; appropriation for foreign exchange and taxes, $95,834, making a total of $1,143,385, and having a net loss for the year of $22,448. This loss compares with $643,000 in 1922, and $1,456,000 in 1921.

A net loss for the year of $22,000; yet the company kept its plant in operation, providing employment for thousands of workmen, business for merchants, and a home market for farmers.

These are things that ought to be remembered when people talk about "profiteers" and when political tariffists shout for abolition of the duty on agricultural implements.

WHY NOT CANADA FIRST?

(Victoria Times)

Sentiment plays but a very small part in the calculations of the average investor. As long as the security is all right other considerations usually take a seat in the rear of his calculations. At the same time one hopes that the various financial and exploratory missions which Great Britain is sending to many parts outside the Empire do not mean the desertion of the fields of profitable investment that are to be found within the territory owned by the British family. While Lord Lovat came to Canada recently on the business of the Empire Forestry Commission, so keen a student of affairs as he has proved to be might have applied himself to the dissemination of rather more information about this country, apart from his primary examination into our forest wealth, and its varied opportunities than was revealed in such extracts of his report as have reached this country. His particular association of a more recent date is recalled because an announcement appeared in the Canadian press the other day to the effect that he was heading another mission to Brazil, this time, to conduct an extensive inspection of the mining and agricultural industries of that country. There may not be anything especially significant in the investigation which he is conducting; but the average Canadian, and particularly the British Columbian, will wonder why the British capitalist does not pay more attention to this part of the world, why, for instance, he is content to allow huge dividends from Canadian mines to be reaped by foreign investors instead of by himself.

WORKING IN THE DARK

(Regina Leader)

A Calgary dispatch to THE FINANCIAL POST calls attention to the fact that although the Alberta wheat pool is in operation and claiming to be doing "all business of the port," absolutely nothing is being given out as to the cost of doing this business. This fact should be borne in mind by those who are asked to sign up with the Saskatchewan pool on the strength of the alleged success of the Alberta organization. A wheat pool may be doing all the business in the province, without helping the farmers in the least. What the farmers expect the pool to do for them is lower marketing costs and thus increase their margin of profit. A producer would be foolish indeed to sign away his wheat for five years if the cost of marketing it is to be higher than he has to meet at present. The cost of handling pooled wheat in North Dakota last year was 13.7 cents per bushel, which appears to be rather high. Although it will be impossible for the Alberta pool officials to say what the exact cost of handling pooled wheat in that province will be this year until the last bushel has been marketed, a fairly accurate estimate should be possible even at this time. The producers in Saskatchewan would probably be more inclined to sign away their wheat to the pool if they were assured that the cost of handling pooled wheat would not be in excess of the cost of marketing it through the ordinary channels of the grain trade. Again, a little frankness on the part of those behind the pool movement in the prairie provinces would perhaps not do the movement any harm. The producers are entitled to it, anyway.

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For February Funds

In view of the fact that there is no more large financing contemplated in the near future, it is almost certain that there will be a marked scarcity of high-grade Government and Municipal bonds, and we would advise that you take advantage of the attractive investment opportunities which are now available.

To those anticipating funds in the near future, we would suggest that our new February Bond List contains a wide range of bonds worthy of your immediate attention.

We would be pleased to forward a copy upon request.

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Newfoundland Light and Power Business Growing

From Our Own Correspondent.

MONTREAL.—Some figures of the business and earnings of the companies being taken over by the Newfoundland Power and Light Company are available.

The business has been in operation for 25 years, and gross earnings increased from $184,122 in 1916 to $323,430 for the operating year ended June 30, 1923. Light and power customers number approximately 4,224 as compared with 2,720 in 1919. Population served is about 38,000.

The company procures its power from its own hydro-electric developments situated about 8 miles from St. John's, which have a present installed capacity of 4,200 horsepower, and undeveloped water powers are capable of producing in the neighborhood of 9,300 additional horsepower installed capacity.

After operating and maintenance charges, earnings for the year ended June 30, 1923, are reported to have been $163,384. and for the years 1916 to 1923, inclusive, they averaged $151,116.

Next week the Royal Securities Corporation will offer $1,000,000 of bonds of the enterprise. In the past it has been a close corporation.

NEWS AND VIEWS ABOUT BONDS

BIG CORPORATION ISSUES DOMINATE THE BOND MARKET

Several Municipalities Sell Bonds; Price Shows Some Weakness

Quietness has been the prevailing note in the bond market during the past week and prices have shown a tendency to sag. Moderate buying is reported by private investors and some institutions are taking up offerings which look attractive. However, the effects of the heavy financing in the fall months and in January are now being felt, so that some selling pressure is noticeable. Trading continues dull with little prospect of a revival at present.

While the general tendency of bond prices is upward, many investors feel that the new high levels reached in January were not justified by conditions. They point out that the yields on mortgages are still firm at 7 per cent. On the other hand any reduction in building may reduce the demand for mortgage money, causing a drop in the rate, especially since some companies already find it difficult to place their money on satisfactory loans. Moreover, the amount of bonds issued during the present year is likely to be less than in 1923.

While a number of municipal issues were offered in the past week, the stage has been dominated by industrial issues. Following the offering of $2,000,000 of Brown Corporation preferred stock, came the announcement of an $8,000,000 issue of Montreal Tramways & Power Company 6 per cent. bonds being offered by a strong syndicate, and the purchase by local firms of $1,000,000 Toronto Carpet Company bonds.

Offer Winnipeg Bonds

An issue of $2,000,000 city of Winnipeg bonds has been sold to a syndicate composed of Dominion Securities Corporation, Wood, Gundy & Company and A. E. Ames & Company. The bonds, which are dated March 1, 1924, are due March 1, 1944, and bear interest at 5 per cent. They will be offered to the public at 96.93 and accrued interest to yield 5¼ per cent. Of the total issue of $2,000,000, $1,500,000 is for hydro-electric purposes, $400,000 for public schools and $100,000 for waterworks.

Take Up Hamilton Issue

Wood, Gundy & Company have exercised an option secured in January on $90,000 of 20-instalment 5½ per cent. bonds and $565,000 of 20-instalment 5 per cent. bonds of the city of Hamilton.

Leamington Sells Bonds

The town of Leamington sold three issues consisting of $19,000 six per cent. 10-instalment, $112,200 six per cent. 15-instalment and $48,000 six per cent. 20-instalment bonds, to C. H. Burgess & Company, privately.

Awarded Galt Issue

Nesbitt, Thomson & Company were awarded $186,002 of 5½ and 6 per cent. 15, 20 and 30 instalment bonds of the city of Galt, at a price of 101.071. At this price the money costs the city 5.40 per cent. The bids were:

Nesbitt, Thomson & Co.	101.071
Gairdner, Clarke & Co.	100.87
A. E. Ames & Co.	100.65
W. C. Brent & Co.	100.562
McLeod, Young, Weir & Co.	100.43
Wood, Gundy & Co.	100.34
Dyment, Anderson & Co.	100.32
Municipal Bankers' Corp.	100.206

Buy Timmins Bonds

An issue of $160,000 5 per cent. 30-year instalment bonds, issued by the town of Timmins, was awarded to Gairdner, Clarke & Co., at 95.83. The tenders received were:

Gairdner, Clarke & Co.	95.83
Wood, Gundy & Co.	95.17
McLeod, Young, Weir & Co.	94.14
C. H. Burgess & Co.	94.06
Municipal Bankers Corp.	93.64

Middlesex Sells Issue

An issue of $90,000 County of Middlesex 5 per cent. debentures 20-year instalment was awarded recently to McLeod, Young, Weir & Company at 97.50. The list of tenders is as follows:

McLeod, Young, Weir & Co.	97.80
Matthews & Co.	97.67
Gairdner, Clarke & Co.	97.57
Dominion Securities Corp.	97.53
A. E. Ames & Co.	97.41
Bain, Snowball & Co.	97.26
Wood, Gundy & Co.	97.19
W. C. Brant & Co.	96.93
R. A. Daly & Co.	96.267
Bell, Gouinlock & Co.	97.11

Award Dunnville Issues

The town of Dunnville awarded two issues of $10,000, five per cent. 20-instalment and $27,000 of 5½ per cent. 20-instalment bonds to Dyment, Anderson & Company at 99.447. The tenders were:

Dyment, Anderson & Co.	99.447
Nesbitt, Thomson & Co.	99
A. E. Ames & Co.	99.17
McLeod, Young, Weir & Co.	98.88
Bird, Harris & Co.	98.81
Wood, Gundy & Co.	98.66
C. H. Burgess & Co.	98.42
Gairdner, Clarke & Co.	98.47
MacNeill, Graham & Co.	98.11

Sell in London

An issue of British Columbia Electric Railway Company bonds totaling £750,000, bearing interest at 5 per cent. and maturing in 1934, was offered in London, Eng., at 95 and was quickly oversubscribed.

COMPENSATION IN ALBERTA

EDMONTON.—A total of $485,000 was paid out in claims under the compensation act, according to the annual report of the board administering the act. In 1922 the amount paid out was $399,577. During the season 409 dependents of deceased workmen and 58 pensioners were receiving payments from the funds.

Drawings of French Bonds

Only those issues that have been sold Canada are included.

CREDIT NATIONALE
500 francs bonds 5% issue of 1920
Drawing of February 1, 1924

No. 4,414,234 repayable at 1,000,000 francs.

No. 357,298 repayable at 500,000 francs.

Nos. 4,004,009 and 5,228,536 are repayable each at 200,000 francs.

Nos. 1,215,152; 3,[illegible],041 and 7,983,852 are each repayable at 100,000 francs.

Nos. 3,107,985; 3,125,255; 3,885,997; 4,491,352; 5,278,462 and 7,435,916 are each repayable at 50,000 francs.

With the exception of the foregoing bonds each of the following bonds is drawn for redemption at 500 francs:

357,201—300	3,885,901—100
1,215,101—200	3,886,000—100
1,219,401—500	3,973,001—100
2,817,601—700	4,004,001—100
3,107,901—300	4,414,201—300
3,108,000—300	4,491,301—400
3,125,201—300	5,228,501—600
5,278,401—500	7,435,901—900
7,436,000—900	7,983,801—900

TRAM POWER BONDS RUN FIVE YEARS

New Syndicate Takes Over Eight Million Bonds of Montreal Corporation

From Our Own Correspondent.

MONTREAL.—Entirely new terms of issue, and a brand new syndicate, mark the offering of bonds of the Montreal Tramways and Power Company. The syndicate of investment houses which originally underwrote the issue turned the bonds over. Instead of being payable in Canada alone the bonds are now payable in both Canada and the United States, and instead of running for a ten-year term, they mature in five years, which is considered safer in a collateral trust bond.

The offering of $8,000,000 of five-year 6 per cent. bonds was made this week by a syndicate composed of Hanson Brothers, Greenshields and Company, René F. Leclerc, Inc., National City Company, J. A. Sisto and Company, of New York; R. A. Daly & Co., Matthews & Co., Geo. Beausoleil & Co., and Geoffrion & Co. The offering price was 99½, at which the bonds yield 6⅛ per cent.

The security behind the issue is considered excellent, and consists of a controlling interest in the stock of Montreal Tramways and Power Company, or $2,100,000 par value, and $7,000,000 par value of the 5 per cent perpetual mortgage debentures of that corporation. Income from these two investments total $560,000 a year, as against interest charges of $480,000 a year on these bonds. The income is virtually guaranteed by the nature of the contract between the city of Montreal and the Montreal Tramways Company.

New Partners For Well Known Toronto Firm

The announcement is made by John Stark & Company that on March 1 Strathy R. Mackellar, manager of the stock department, and William A. Page, manager of the mortgage department, will become partners in the firm.

Mr. Mackellar was formerly with Laidlaw and Company and five years ago he joined John Stark & Company as manager of their stock department. He is a director of the Empire Life Insurance Co., and secretary-treasurer of the Quebec Prospector, Limited.

Suggest Province Change Its Accounting System

In spite of the political wrangling over the question of whether the province of Ontario had a surplus or a deficit during the past three years. the progress of the debate indicates clearly, as pointed out in THE FINANCIAL POST, that a uniform accounting system is necessary to keep the statement of provincial affairs on a sound basis. The suggestion to appoint a committee of expert accountants to formulate a permanent system has something to commend it Only in some definite plan can the possibility of "juggling" the accounts be avoided in any province. Another step in solving the difficulty may be the appointment of a financial comptroller. However, the announced intention of the Ontario government to appoint such an official has not yet materialized.

Estimates fix the production of balloon tires in one Ohio district at 3,500 per day. Operations are heaviest on small sizes, the demand for replacement purposes being relatively greater than the demand from automobile manufacturers.

NEW BOND ISSUE TO FINANCE WORK OF HOWARD SMITH

The Annual Report Shows Higher Sales and Earnings

From Our Own Correspondent.

MONTREAL.—Howard Smith Paper Mills, which has been carrying out rather extensive construction work during the past year, plans to recoup its treasury for these expenditures by the sale of bonds in its treasury. Sufficient bonds will be sold to pay off $450,000, representing a special loan incurred for construction work and for the purchase of timber limits, and to provide funds for the completion of construction work now on hand. To date the company has spent about $2,000,000 on improvements to its plants and for every $1,000 spent $750 of bonds have been taken into the treasury of the company. This means that there are now about $1,600,000 of bonds that could be issued under the terms of the issue if the directors desired. However, THE FINANCIAL POST learns that it is not the intention of the directors to do financing on any such broad scale, but that an issue of about $750,000 will be made of the first and refunding mortgage bonds bearing 7 per cent. interest and due in 1941.

What Extensions Have Been Made

The extensions that have been carried out during the past year are outlined by the president of the company, C. Howard Smith, in the annual statement of the company that is being mailed to the shareholders. Mr. Smith states, in part:

"During the year an extensive program of construction was carried on, principally at Cornwall, where a large three-story finishing room building has been erected, and provision made to increase the output of Nos. 3 and 4 machines, by extension of the machine room building over the head race, all of which will have the effect of reducing the manufacturing costs of that division. A new machine shop has also been completed.

"At the Crabtree division a third pulp grinder has been installed, bringing the production of groundwood from seventeen to twenty-five tons per day.

"Pulpwood is now being brought from the company's limits at Gaspe. A start was made last season, and it is expected that the company's requirements will be cut from these limits this year.

"Your directors are pleased to report a marked increase in the export business, which for the year just ended doubled the previous year."

UNLISTED BONDS
(Montreal0 Stock Exchange)

	Bid	Asked
Abitibi 6% 1940	..	96½
Alabama 5% 1962	68½	69½
Algoma Steel 5% 1962	..	..
Ames Holden 6% 1947	42½	..
Belding 5% 1936	86	..
Brandram-Henderson 6% 1939	89	..
Belgo Can. Paper 6% 1943	..	96½
Brompton 8% 1941	108	110
Brompton 6% 1939	..	99
Burns, P. & Co. 6½% 1943	98½	100
Bay Sulphite 6½% 1943	..	..
Calgary Brewing 5% 1942	76	79
Can. Steamship Lines 7% 1942	..	..
Can. Light & Power 5% 1949	73	74
Consumers Glass 6% 1935	85	87½
Can. Nor. Rly. Income 5% 1930	52	53
Can. Steel Foundries 6% 1936	97½	..
Can. Car. (Scrip) 6% 1927	..	..
Dom. Iron 5% 1939	70	..
Davies, Wm. 6% 1942	..	84½
Dom. Power 5% 1932	91	..
Dom. Textile 6% 1949	102	..
East Koot. Power 7% 1942	97½	..
Fraser Co. 8% 1941	..	..
Frontenac Brewery 6% 1951	..	84
G.T.P. 4% 1955	72½	..
G.T.P. Sup. 4% 1955	74½	..
Holt, Renfrew 5½% 1937	..	96
H. Smith Paper 7% 1941	97½	97¾
H. Smith Paper 6% 1934	99½	..
Lake Sup. Paper 6% 1941	104½	..
Laurentide Pow. 5% 1946	96½	98
Laurentide Pow. 6% 1936	95½	98
Maple Leaf Milling 6½% 1943	99½	101
Maisonneuve 5% 1954	..	..
Man. Power 7% 1941	100	..
Mattagami 6% 1937	60	..
Mattagami Deb. 7% 1949	..	35
Montreal Tram. 6½% 1924	102½	..
Montreal Pub. Ser. 5% 1942	..	..
Montreal Pub. Ser. 6½% 1924	99½	100½
Montreal Steel Works 6% 1940	99	..
Montreal W. & P. 4½% 1932	..	..
Montreal W. & P. 5% 1932	..	..
Nor. Ont. Power 6% 1931	91½	92½
N.S. Steel 6% Deb.	..	74
Ottawa Gas 6% 1939	100	..
Ottawa Gas 5% 1934	..	99
Ontario Pulp 6% 1931	103	..
Price Bros. 6% 1943	99½	100½
Paton Mfg. Co. 6% 1953	92	..
Provincial Paper 6% 1940	..	100
Porto Rico Rly 5% 1962	..	..
Quebec Power 6% 1953	94½	95½
Quebec Jacques 5% 1931	82½	90
Shaw. Cotton 6% 1949	75	81
Shawinigan 5% 1934	102	..
Shawinigan 5½% 1950	102	..
Shawinigan 6% 1950	103½	..
South Canada Power 6% 1948	99½	..
Spanish River 8% 1941	..	107½
St. Maurice Power 6½% 1953	105½	..
Toronto Power 5% 1924	99½	100
Wabasso Cotton 7% 1947	97½	..
Windsor Hotel 6½% 1943	..	..
West. Koot. Power 6% 1940	99½	..
West. Power 5% 1949	86½	87½
West. Power 7% 1926	98	..
West Quebec Pow. 6½% 1931	..	90
Winn. Elec. 6% 1943	91½	..
Chicoutimi Pulp 6% 1943	69½	..
Montreal L. H. & Pr. 5% 1933	96½	..

TORONTO CURB QUOTATIONS

	Bid	Asked
Abitibi Gen. Mortgage 6% 1940	95	97
Amer. Sales Book 6% 1927	98	..
Ashdown Hardware 5% 1928	94	..
P. Burns Co. 6½% 1943	97	100
Can. Machinery 6% 1940	70	75

BOND MOVEMENTS OF THE WEEK

Week Ending February 26

Bonds	Int. Rate	Due Year	Yield	Range 1923 High	Range 1923 Low	Range 1924 High	Range 1924 Low	Latest Price Ask	Latest Price Bid	High	Low
Bell Telephone	6	1925	5.06	101	97⅝	100½	99½	—	99½	99⅝	—
Can. Cement	6	1929	5.40	103½	100	103½	100½	102⅝	—	103	102¼
Can. Bread	6	1941	5.91	100	96	101	99	101	100½	101	100⅞
Ced. Rapids	5	1953	6.13	98½	93	98½	95	100	99	98	—
Dominion Coal	5	1940	5.40	96	94	95⅝	—	—	95⅝	95⅝	—
Dom. Textile (A)	6	1925	6.00	100⅞	99⅝	101⅛	100	100⅝	100	100	—
Montreal Trams.	5	1941	5.71	92⅝	87½	92	91¼	91⅞	—	92	—
Quebec Rly.	5	1939	6.81	83½	68	83	80	—	82	82⅝	81½
Sao Paulo	5	1929	7.52	90¼	86	88	86½	88½	87⅝	88	—
Sher.-Williams	6	1941	5.86	102½	99	101⅝	101	—	101	101½	—
Steel of Can.	6	1940	5.85	102½	99	102	100¼	101½	101	101½	—
Wabasso	6	1947	6.67	96	85	96⅝	90⅝	—	92	92	—
Wayagamack	6	1951	7.76	86⅝	75	80⅝	78½	79½	—	80	78½
War Loan	5	1925	4.60	100.95	99.10	101.15	100.15	101.05	100.95	101.15	100.85
Do.	5	1931	4.84	101.80	99.80	101.90	100.15	101.25	101.15	101.05	101.00
Do.	5	1937	4.70	103.30	102.00	103.30	102.50	102.95	102.85	103.00	102.50
Victory	5½	1924	4.72	101.65	99.80	100.90	100.20	100.95	100.85	100.85	100.75
Do.	5½	1927	4.70	105.50	101.60	103.15	102.15	103.15	103.00	103.15	102.80
Do.	5½	1933	4.83	106.70	104.15	106.65	104.95	105.30	105.20	105.35	105.10
Do.,	5½	1934	5.19	103.90	101.30	103.30	102.20	102.65	102.55	102.65	102.40
Do.	5½	1937	4.79	108.45	106.25	108.17	107.37	107.60	107.50	107.75	107.37
Do., Renewal	5½	1927	5.08	102.80	100.75	101.80	101.00	101.90	101.75	101.50	101.25
Do., Renewal	5½	1932	5.14	103.15	100.80	102.50	101.35	102.35	102.25	102.50	103.10
Do., Refund	5	1928	4.94	99.70	98.80	100.50	99.40	100.10	100.00	100.25	99.87
Do., Refund	5	1943	5.00	99.25	97.00	100.80	99.00	99.80	99.70	100.13	99.60

New Issue:

Montreal Tramways & Power
Company, Limited
6% Bonds
due 1st March, 1929,
Price: 99½ and interest.
Yielding 6⅛%

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Dated March 1, 1924. Due March 1, 1929
Payable, Principal and Interest in Canada or New York
Denominations of $1000, $500, and $100.

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Price 99½ and Interest to Yield 6 1/8%.

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Penmans Limited

Corporate Office: MONTREAL, QUE. *General Offices:* PARIS, ONT.

ANNUAL REPORT
for the Year ending December 31st, 1923

BOARD OF DIRECTORS, 1923

President, SIR CHARLES GORDON, G.B.E. Vice-President, R. B. MORRICE
H. B. MacDOUGALL J. P. BLACK WM. McMASTER *J. R. GORDON
J. N. LAING *JOHN BAILLIE V. E. MITCHELL, K.C., D.C.L.
*Deceased.
H.BARRETT, General Manager C. B. ROBINSON, Secretary-Treasurer

DIRECTORS' REPORT

YOUR Directors are pleased to submit to the Shareholders their Annual Report of the operations of the Company for the year ending 31st December, 1923.

The Sales for the year amounted to $6,847,877 as against $6,224,740 for 1922, an increase of $623,137, or equal to 10%.

After paying Interest on Bonds and making allowance for Depreciation on Plant and Federal Income Tax, writing off Bad Debts and Old Machinery, the Net Profit amounts to $432,949.78, from which we paid the usual quarterly Dividends on the Preferred and Common Stocks, and in addition thereto a Bonus of 2% on the Common Stock, the total disbursement being $279,560.00, leaving a surplus for the year of $153,389.78.

The Profit and Loss Account now amounts to $1,229,454.80.

The Surplus of Liquid Assets over Liabilities has been increased during the year by $85,997.78, the Active Surplus now amounting to $3,504,435.89.

Since we last met your Directors have suffered a very serious loss in the passing away of two Members of your Board in the persons of Mr. John Baillie and Mr. James R. Gordon. Personally, I wish to pay tribute to both for their devotion and loyalty to your Company during the years they served on the Board.

Mr. I. Bonner, who has been General Manager of the Company for eleven years, resigned in October last on account of ill health. He is succeeded by Mr. Henry Barrett who has been connected with your Company for upwards of twenty years.

The Board of Directors wish to express their appreciation of the manner in which the staff and entire organization of the Company have performed their duties throughout the year.

The Books and Accounts of the Company have been audited during the year by C. S. Scott & Company, Hamilton, and their report is presented herewith.

Respectfully submitted,
C. B. GORDON, President.

Profit and Loss Account for the Year Ending 31st December, 1923

Gross Trading Profits for year ending 31st Dec., 1923		$ 751,002.07
DEDUCT		
Interest on Bonds	$ 100,000.00	
Reserve for Depreciation on Plant	..100,000.00	
Res. for Income Tax	50,000.00	
Machinery written off	41,583.40	
Bad Debts written off	26,468.89	
		318,052.29
Net Earnings for the year 1923		$432,949.78

DISBURSEMENTS		
Pref. Dividend, 6%	$ 64,500.00	
Com. Dividend, 8%	172,048.00	
Com. Bonus, 2%	43,012.00	
		$279,560.00
Surplus for the year		$153,389.78
Brought forward from 31st Dec., 1922		1,076,065.02
Bal. at Credit Profit and Loss Account		$1,229,454.80

General Statement as at the 31st December, 1923

ASSETS		
FIXED		
Comprising Real Estate, Buildings, Plant, Dwelling Houses, Water Powers, etc., Less Depreciation		$3,692,664.31
Goodwill, Trade Marks, etc.		1.00
CURRENT		
Cash on hand and in Bank	$404,093.57	
Accounts Receivable	949,399.00	
Bills Receivable	64,187.06	
Inventory of Raw & Manufactured Stock	2,017,842.49	
Unexpired Insurance	12,156.73	
Victory Bonds	204,100.00	
TOTAL CURRENT ASSETS		$3,651,778.85
		$7,344,444.16

LIABILITIES		
CAPITAL		
Authorized, Pfd.	$1,500,000.00	
Common	2,500,000.00	
	4,000,000.00	
Issued, Pfd.	1,075,000.00	
Common	2,150,600.00	
		$3,225,600.00
FIVE PER CENT. FIRST MORTGAGE BONDS		
Due 1st Nov., 1926		2,000,000.00
Reserve Account		742,046.40
CURRENT LIABILITIES		
Unclaimed Dividends	173.47	
Accounts Payable	69,665.61	
Res. for Inc. Tax	50,000.00	
Bills Payable	2,299.70	
Wages	25,204.18	
TOTAL CURR. LIAB.		$147,342.96
Surplus—Bal. Profit and Loss Account		1,229,454.80
		$7,344,444.16
INDIRECT LIABILITIES		
Customers' Paper under Disct.		$99,985.96

C. B. GORDON, President.
R. B. MORRICE, Vice-President.

We certify that we have audited the Books and Accounts of Penmans, Limited, for the year ended December 31, 1923, and have been furnished with vouchers for all expenditures.

We have obtained all the information and explanations that we have required, and in our opinion the Balance Sheet herewith is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the books of the Company.

Hamilton, February 6th, 1924. C. S. SCOTT & CO., Auditors.

Comprehensive Book of Bond Tables is Issued

Several new and helpful features are embodied in a new book on "Yields of Bonds and Stocks," by Johnson, Stone, Cross and Kircher. All of the authors have at some time been engaged in the investment banking business and studied its needs.

The basis of the tables is the prices of bonds and the number of years to run, from which are secured the yields. They are made up for bonds bearing interest at rates from 3½ per cent. to 8 per cent., maturing in periods varying from one-quarter of a year to one hundred years, and the yields are given to three places of decimals. In addition to the true net yield to maturity is given the current yield in each case.

Yields on stocks with dividends at rates from 2 to 12 per cent. and prices from 30 to 180 are also given.

CIVIC AND PROVINCIAL FINANCE

BIG INCREASE IN SASK. ISSUES FOR SCHOOL PURPOSES

Report of Local Government Board Stresses Economy Measures

"The policy of retrenchment so evident in the activities of Saskatchewan's municipalities, school districts, rural telephone companies and hospital districts, during 1922, continued in an even more marked degree throughout the twelve months just passed," states the annual report of the Saskatchewan local government board.

Applications presented to the local government board for permission to borrow money by way of debentures showed a desire to incur capital indebtedness only when necessary. In some cases, where the local government board decided that the security of the local authority was more than ample to protect the intended loan, the ratepayers themselves, when voting upon the proposal, rejected it.

During the year many rural school districts and rural telephone companies, which in 1922 had found difficulty in meeting debenture instalments, paid up in full all arrears. No new defaulting municipalities were added to the list.

A new phase of the situation is that a large part of the debentures issued are being absorbed by private and institutional investors in the West.

The report states that the number of authorizations granted during 1923 exceed those of 1922 by 56 in number, and $22,546 in amount, the increase being mainly in villages and rural schools.

From the cities, 29 applications for $857,354 were received. Of these, three totalling $260,483, were refused, and in ten reductions were made of $79,461, making the net amount authorized $571,410.

Twenty applications were received from towns for $159,815. Three were refused, making the net amount authorized $146,926.

Twenty applications of $69,775 by villages were listed. Eight of these amounting to $39,200, were refused, and reductions of $5,625 were made in four, the net authorizations amounting to $24,950.

Only 2 applications, for $19,459, were received from rural municipalities, both of which were granted.

Debentures authorized for school purposes in the year, as compared with the previous year, showed an increase of 56 per cent. in number, and approximately 133 per cent. in amount. The figures are $1,004,121 in 1923, as against $472,250 in 1922. In explaining this, the report states:

"This may be ascribed principally to the fact that many schools erected in the early years of the older districts are being condemned as unsuitable, or, owing to the growth in population, have become to small for requirements. In many cases of this kind the Board, having in view the degree of permanency attained by certain districts, has granted authorization for the erection of first class commodious buildings, capable of supplying comfortable accommodation for some years to come, at costs which would not, except under special circumstances, be considered for schools in newer districts which had not acquired a degree of stability."

The report continues:

"There is a pronounced falling off in authorizations for rural telephone purposes, as compared with 1922, the figures being 70 totalling $121,158 in 1923, as against 75 totalling $225,734 in 1922. This is due to the fact that the settled portions of the province are now well served by rural telephone lines, except for extensions and replacements, the necessity for which may arise from time to time."

In connection with sinking funds, it is stated:

It is shown that in Regina, Saskatoon and Moose Jaw, after having appropriated substantial sums to current and other revenue, authority for which is contained in section 353 of The City Act, surpluses are shown over and above the requirements of the funds, which would indicate commendable care in the selection of investments and management.

The Regina surplus on Dec. 31 was $21,980, with collections of $53,680 still due for 1923. In Saskatoon these figures are $46,414 and $47,555 respectively, and in Moose Jaw they are $101,777 and $33,466.

Finances of Truro are In a Sound Condition

The annual report of the town of Truro, N. S., shows the oustanding debt as $972,660, the largest single item being waterworks debentures of $182,230. Against this are sinking funds of $283,052, consisting entirely of government and municipal bonds.

The total receipts on current account were $210,116, and the expenditures $199,006, while the capital receipts were $21,820, and the expenditures for sidewalks, sewers, water extensions, etc., were $11,427. The gross operating profit on the light commission was $38,471, and the net after deducting bond interest, sinking fund payments, and depreciation, was $23,281.

North Vancouver Had a Surplus of $43,299

According to the annual report for 1923, the city of North Vancouver had liabilities at the close of 1923 totalling $3,641,697. This is made up of $3,271,446 of debentures, treasury notes due Oct. 1, 1925, of $180,000 bank loan of $83,500, housing account of $78,984, trust items of $17,825, and sundry, $9,943. The sinking funds against these bonds total $732,664. In addition, there are $257,500 of Burrard Inlet Tunnel and Bridge Co. bonds guaranteed by the city.

The income for the year was $233,927, and the expenditure was $190,628, leaving a revenue surplus of $43,299.

MAY STOP BONUSING OF NEW INDUSTRIES

Ontario and Quebec Premiers Confer on Municipal Affairs

Action by the province of Ontario in conjunction with Quebec to do away with the abuses caused by municipalities bonusing industries, was one subject considered by ministers from both provinces at a conference in Toronto last week. The difficulties which municipalities encounter through the competition to secure new industries has long been a matter of regret to sound business men. Any attempts to overcome it have so far failed.

The desire for growth has been so strong that the offers made to concerns seeking locations have gone far beyond the bounds of prudence. In many cases tax exemptions have been granted; in others, fixed assessment for several years have been guaranteed; in some cases bonuses have been voted; many towns have guaranteed the bonds or other securities of new concerns. The result of the system is that the glowing prosperity of the town, as painted at the time, has not materialized in many cases, and the taxpayers are footing the bills for their mistakes.

Possibly the most serious abuse is that the promoters of unsound enterprises used the support of town fathers in selling the dangerously speculative securities of their companies to the residents. An incident of this nature came to light recently. A concern which had been located in an Ontario city got into financial difficulty. Its bonds became unsaleable and slumped to a fraction of their former quotations. The heads of the company made arrangements to locate in a large town. They secured certain concessions and the support of the town council, the board of trade, local press, etc. A so-called fiscal agency was immediately organized and proceeded to sell stock in the community. One man approached consulted THE FINANCIAL POST. At the same time he was considering investing in the bonds of a successful company which had been established over fifty years. He stated that the stock of the new company, in a field where competition is especially keen and with a bad record, had looked better to him than the bonds of the other company, because the former was building a large factory in his town. Fortunately for him and other investors in the community the company was forced into liquidation, and had to abandon the new project before money had been subscribed.

This competition among municipalities has extended beyond provincial boundaries. An Act in force in Quebec largely limits the bonusing by municipalities, and attempts have been made to repeal it, because Ontario towns were drawing industries away. It is understood that the premiers agreed in general that bonusing should be limited to fixed assessments for certain periods. While no definite announcement has been made, it is possible that legislation to this effect will be introduced in the legislatures this year.

Canada's Water Power Position an Ideal One

Canada has for many years been a pioneer in water power development; in size of plants, size of units, greatest transmission spans, greatest area of distribution and greatest output of a single concern, she holds or has held the records, The Queenston-Chippawa plant has units of 60,000 h.p. each, and is designed for an ultimate installation of 600,000 h.p.—several other plants are of about 20,000 h.p. each; the transmission line span of 4,800 feet (nearly a mile) built by the Shawinigan Company across the St. Lawrence River was at that time the longest single span in the world; the Hydro-Electric Power Commission of Ontario operates 22 water powers and distributes about 650,000 h.p. to 226 municipalities over 3,000 miles of transmission lines, forming the largest single distribution concern in the world, and in a list showing the output of the 14 largest electrical undertakings in North America, Canadian plants take first, sixth, ninth, and thirteenth places, in spite of Canada's much smaller population.

SEVERAL TAXES SHOW INCREASE IN ALTA.

Gasoline Tax Produced Nearly Quarter Million; Soft Drinks Taxes Disappointing

From Our Own Correspondent.

Figures published by the Alberta Government show an increase of $20,058 in the amount received from the amusement and theatre tax compared with 1922, the figures being $183,933 for 1922 and $203,992 for last year. There was also an increase in the motor vehicles tax, the total revenue in 1923 being $742,575, as against $716,873 for 1922.

The railway mileage tax proceeds were the same as for 1922—$149,715—but the Canadian National Railway, which lost a law suit against the province on this tax, contributed $100,000 of arrears during the past year, and will give a similar sum next year. The total arrears altogether amount to $300,000.

There was a slight falling off in receipts from the mine owners' tax, which was $253,495 in 1923 compared with $274,549 in 1922. The loss was recouped on the corporations' tax act collection, however, which netted $475,609 in 1923. In the previous year this amounted to $462,691.

The gasoline tax, instituted in May, 1922, is a good revenue tax. It gave $185,118 in revenue for the first six months during the first year of operation, and yielded a total of $241,247 for 1923.

The two "croppers" in taxation are the soft drinks tax and the mineral lease tax act. The former estimated to produce $150,000 in 1923, actually gave only $160, as a result of litigation over the tax, and the latter, which is being contested by the Hudson's Bay Company and the C.P.R., produced only $9,097, against an estimated revenue of $300,000.

TAX SALE LANDS AT CALGARY A PROBLEM

Now Represent Some Millions of Dollars; Desirable Exchanges Not Allowed

From Our Own Correspondent.

One of the most vital questions concerning the credit of the city of Calgary, is its tax sale lands which represent some millions of dollars in back taxes and interest. The matter is in the hands of a special committee of the city council, but only one meeting of that body has been convened since the first of the year.

Under the present policy the commissioners and rental agents are tied up in such a way that they cannot take advantage of many offers whereby the city could profit. With thousands of lots now on the city's books, and many more in the process of being accepted, at present, land in the inner area must be sold at the assessed value, if possible. The minimum price on other land is the amount of the arrears and interest—in other words, what the property cost the city. Exchanges of land are not allowed. The city has many such applications, most of which would mean the building of houses, if the exchange was allowed.

Those in touch with the situation believe a complete review of conditions is necessary.

No Promises Made to Plum-Seeking Delegations

From Our Own Correspondent.

ST. JOHN.—Another delegation has followed the beaten trail from the Maritime provinces to Ottawa in quest of money for improvements to the harbor of St. John and Halifax, as well as harbors of lesser shipping importance, rivers, and waterways of all sorts. Members of the St. John board of trade made the trip in a futile endeavor to extract from members of the Federal government promises of grants for the completion of a breakwater at Negro Point, at the entrance of St. John harbor.

Those members of the cabinet who were interviewed refused to pledge themselves to endorse such grants as requested, either that for the completion of the breakwater or others.

Tenders and By-Laws

TENDERS WANTED

Mar. 10, Vernon.—$31,000, 5½%, 15-yr. debentures. J. G. Edwards, City Clerk. (See announcement on page 16.)

Mar. 5, Bagotville, P.Q.—$80,000, 5½%, 30-yr. serial debentures. Louis P. Chayer, Sec.-Treasurer.

Mar. 3, Burnaby District, B.C.—$280,000, 5½%, 6 and 15-yr. debentures. Arthur G. Moore, Clerk, Edmonds.

Mar. 15, Dryden.—$30,000, 6%, 30-yr. debentures. J. E. Gibson, Clerk and Treasurer. (See announcement on page 16.)

March 10, St. Lambert, P.Q.—$350,000, 5½%, 30-yr. bonds. James R. Beatty, secretary-treasurer.

March 10, Sherbrooke, P.Q.—$210,000, 5%, 30-yr. serial bonds. E. C. Gatien, secretary-treasurer.

Mar. 5. Capreol.—$3,750, 6 per cent., 20-yr. debentures. A. Brundage. Treasurer. (See announcement on page 4.)

WEEKLY RECORD OF GOVERNMENT AND MUNICIPAL BOND SALES

Date—	Place—	Sold To—	Rate	Term	Amount	Price	Basis
Feb.	—Brussels		5%	20-yr.	$21,000	100	..
Feb. 23	—Timmins	Gairdner, Clarke & Co., Toronto	5%	30-yr.	160,000	95.83	..
Feb. 21	—Middlesex County	McLeod, Young, Weir, Toronto	5%	20-yr.	90,000	97.80	..
Feb. 22	—Winnipeg	Dominion Securities and Syndicate	5%	20-yr.	2,000,000	96.93	5¼
Feb.	—Hamilton	Wood, Gundy & Co., Toronto	5%	20-ins.	565,000	96.467	..
Feb.	—Hamilton	Wood, Gundy & Co., Toronto	5½%	20-ins.	90,000	101.85	..
Feb.	—St. Boniface	Canada Bond & Debenture Corp.	..	..	811,200	96	..
Feb. 14	—Saskatchewan Schools	Cross & Co., Regina	7½%	10	1,615	..	..
Feb. 25	—Galt	Nesbitt, Thomson & Co., Toronto	5½ & 6%	15,20&30yr.	186,002	101.071	5.4
Feb.	—Leamington	C. H. Burgess & Co., Toronto	6%	10, 15, 20 yr.	179,200	..	..
Feb.	—Dunnville	Dyment, Anderson, Toronto	5 & 5½%	20-ins.	37,000	99.447	..
		CORPORATION					
Feb.	—Toronto Carpet Mfg.	Hanson Bros., Montreal	..	..	$1,000,000	..	..
Feb. 20	—B.C. Electric Rly.	Sold in London	5%	10-yr.	£750,000	95	..

The Busy Executive

The man at the helm is often so immersed in the problems of his own business that he has little time for sufficient study of his personal investments.

Our experience enables us to offer a complete service in the purchase, valuation and sale of high class Securities.

Our advice on any Investment problem is at your service without obligation.

Over 22 years Investment experience.

RENE-T. LECLERC
Incorporated
Montreal- 160, St. James St.
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(ESTABLISHED 1902)
E138

Position Wanted

IN BROKERAGE, BOND OR FINANCIAL Company, by former bank man. Extensive banking and business experience. Four years as branch manager. Apply to Box 8, The Financial Post.

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Specializing in
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ARE YOU IN NEED OF CAPITAL?
We are prepared to assist you in securing the capital you require to make any good proposition successful, either by loan, partnership, syndicate, incorporation or otherwise.
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INSURANCE FOR BUYER AND SELLER

CREDIT INSURANCE GETTING STRONGLY ESTABLISHED NOW

Two Companies in Canadian Field Both Report Excellent Results

From Our Own Correspondent.

MONTREAL.—Canadian business men have taken a firm hold on credit insurance during the past year, and the two companies that have been writing this class of business in Canada have been gratified by the satisfactory results. A year ago, credit insurance was an absolute innovation in Canada; to-day it is accepted by many firms as an essential part of their business, just as is fire, boiler, elevator, or other type of insurance protection.

As evidence of the growing interest in this type of protection in Canada it may be noted that the American Credit-Indemnity Company, during the months of November and December, conducted a very vigorous campaign for new business all over Canada and the United States. There was much competition between the different districts, and the Canadian force of the company made a splendid showing, and was the second department to go over the top and exceed its quota. Somewhat similar has been the experience of the National Surety Company, which writes credit insurance in Canada, and wrote many important policies during 1923, and in the early months of the present year.

Problems in Canadian Field

In putting across the idea of credit insurance in Canada the companies writing this type of business have met with certain problems, of course. They have had to break down the resistance of manufacturers and wholesalers to a new type of insurance that these people did not understand. This has been accomplished by campaigns of education that have shown just what credit insurance aims to do, to protect the business house from abnormal losses due to bad debts, apart from the ordinary losses that occur in every business, and are provided for.

Canada is more conservative than the United States, and it has taken a good deal of hard work to get the idea of credit insurance impregnated in the minds of business men. As it is, the field for this type of business here has hardly been scratched, and the two companies writing credit insurance anticipate a broadening scope for their work. J. E. McFadden, president of the American Credit Indemnity Company, and R. J. Mullen, general manager for Canada of the same company, both inform THE FINANCIAL POST that all indications point to a very large volume of business in Canada, with extensions of branch office and organization to cover all parts of the Dominion. Lt.-Col. Clarence F. Smith, general manager in Canada for the National Surety Company, and E. J. Fathman, manager of the credit insurance department of that company, also state that the field for this class of business in Canada is very broad.

Our Bankruptcy Laws

In writing business in Canada, the companies have run across some unique problems. One has been the nature of Canadian bankruptcy laws. Up to a short time ago, when Canada was over-run with "professional liquidators," who induced merchants to go through bankruptcy proceedings, and, therefore, made business for themselves, losses were abnormally high. Even this year it seems apparent that credit losses, or commercial failures in Canada, will be very high. The new bankruptcy law which makes dishonest bankruptcy much more difficult than it was before, will shortly begin to make its effect felt in a gratifying manner, the credit indemnity insurance people state.

Insurance Official Heads Underwriters

The resignation of V. Evan Gray, superintendent of insurance for Ontario, for the past four years, is now in the hands of the Attorney-General Nickle. The resignation is to take effect April 1, when Mr. Gray will become chairman and general counsel of the Casualty Underwriters' Association an dthe Canadian Automobile Underwriters' Association.

Before coming to the Department of Insurance in 1920 Mr. Gray was assistant income tax collector in the Department of Finance at Ottawa. Previous to that time he had been manager of the Toronto office of the Trusts and Guarantee Company.

Several advances in insurance legislation and the regulation of trust and loan companies are directly due to Mr. Gray's efforts. In 1921 he originated legislation for the inspection of loan and trust companies in Ontario and he has since directed the development of the system.

Mr. Gray has been particularly active in bringing about uniform legislation in the different provinces. Part of the work has already been consummated and the measures for uniformity in other branches are now being prepared.

The work carried on under Mr. Gray will leave a lasting effect on the insurance business in the province. The decision which he won before the Privy Council recently upholding the Reciprocal Insurance Act, is construed to settle a long-standing dispute regarding the jurisdiction of the Dominion and the provinces in insurance matters.

In his new position Mr. Gray will look after the interests of the Casualty and Automobile Underwriters' Associations, the former consisting of about sixty member companies and the latter of eighty-four.

Loss of Laundry Met By Insurance Company

Some shrewd men in the financial district of Toronto are enjoying new collars and shirts at the expense of a well-known insurance company, following the disastrous fire at the premises of the New Method laundry. The reason is embodied in the foresight or accident that these men, who travel frequently, have baggage insurance policies. One man made a trip to Europe last year, and, before leaving, he was induced to insure his baggage. He later discovered that the premium for a short period was nearly as great as for a whole year, so he secured a policy for a year. Some months ago he returned and it happened that his laundry was in the burned building. Consequently, it was totally destroyed. He discovered that the baggage policy covers laundry being sent out in this manner, suits sent for pressing, etc. His claim was quickly settled by the insurance company.

HAIL INSURANCE COMPANIES HAD DIFFICULT YEAR

Considerable Loss Suffered on the Alberta Crop

From Our Own Correspondent.

CALGARY.—Hail insurance companies in Alberta in 1923 experienced the worst season ever since that form of insurance was instituted. So far as the line companies are concerned their total premium income amounted to $1,200,000. The cost of administration will approximately amount to one-fourth of this, leaving $900,000. The amount paid out in awards was more than $1,800,000, thus leaving a net loss of at least $900,000.

The Hail Insurance Board of Alberta, which is operated under the provisions of the Municipal Hail Insurance Act of 1918, shows up much better, however, notwithstanding the fact that in the report which will be submitted to the annual meeting in March it will be stated that the huge amount of $2,411,000 had been paid out in claims. Where they compare so favorably with the line companies is in the volume of business transacted, which represents more than sixty per cent. of the hail insurance of the province. In the case of the board, the larger the business, the less is the cost of operation.

A larger acreage was written by the board in 1923 than in any previous year, in spite of the lowering of line companies' rates in practically all parts of the province. In 1922, the board insured approximately 1,500,000 acres, while last year more than 2,240,000 acres were insured. Some of this was insured at $6, part at $8, and the balance at $10, making the total risk in excess of $21,000,000.

Damage Was Heavy

The board states that the total crop yield last year was the greatest ever produced in Alberta; but, in common with previous years when the crops have been particularly abundant, very heavy hail damage was sustained, the losses of the past year exceeding even those of 1921; one storm, for instance, traveling about 150 miles, and which in places was 12 miles wide.

Between July 17 and August 17, cheques were mailed for 3,924 claims, amounting to $1,982,000. That meant that, in office hours, during the thirty days, a claim was paid every two and a half minutes, and almost $200 a minute was paid out. By the end of the season there were 5,329 claims, and the awards, as stated, were approximately $2,411,000. The report states that when the board met in September they found it necessary to set a rate of twelve per cent. for the season, the highest that has ever been necessary under the municipal plan.

The collections last year, considering the extremely heavy losses, and the large total assessment, the report goes on to state, have been very good. At the end of the hail season the board was indebted to the bank for the sum of $2,240,000. That had been reduced to $1,000,000. In 1921, when hail insurance companies suffered badly, the total amount boorrowed was $1,550,000, and the financial statement of that year showed the loan reduced only to $1,067,000.

The total amount owing from all districts was approximately one-fifth. or 20 per cent. of the entire five years' assessment. At this time last year, 22½ per cent. of the assessment for the four years was still uncollected, and, in 1921, the statement showed about 35 per cent. of the three years' assessment outstanding at the end of the financial year.

Five Years' Showing

A resume of the five years' operations, given in the report, is interesting. $6,260,000 had been paid out in losses. The total assessment had been $7,376,000, and the board had still a surplus of more than half a million. The average rate was seven and four-fifths per cent. on time. That meant that the rate offered under the municipal plan was considerably lower than that offered by any other organization on terms in any part of the province, or even less than the cash rate of the other organizations in the greater portion of the province. Out of every dollar charged the farmer by way of premiums, eighty-five cents was returned to claimants by way of awards, eight and two-third cents went to pay the cost of administration, and the balance, six and one-third cents, placed in the surplus account.

Financial men here consider the report of the board eminently satisfactory in view of the exceptionally large amount of hail experienced last year.

DETERMINATION OF VALUE IN CASE OF FIRE LOSS VARIES

Basis is Replacement Less Depreciation on All Buildings

All property owners, and especially those with co-insurance clauses in their fire insurance policies, should exercise care to have an accurate valuation of the buildings, equipment stock, etc. In case of fire this is necessary to avoid undue losses where co-insurance clauses exist. If the owner overestimates the value of the goods destroyed he is very likely to find himself an insurer for a substantial amount of the risk. In other words, the insurance company will pay a smaller proportion of the loss leaving him to bear the balance himself. If he underestimates the loss his claim will be reduced. The considerations which determine the value of the claim become important in such a case.

The fundamental principle involved is given by a judgment of the Court of Appeals in 1883. Justice Brett said:

"The very foundation in my opinion, of every rule which has been applied to insurance law is this, that the contract of insurance contained in a marine or fire policy is a contract of indemnity and of indemnity only. The assured shall be fully indemnified but shall never be more than fully indemnified; that is the fundamental principle of insurance. Any proposition to prevent assured from obtaining full indemnity or more than full indemnity must certainly be wrong."

Except where the terms of a policy expressly value it, the amount of indemnity is based on different considerations in the case of marine losses than in the case of fire. In a marine insurance policy the value at risk is the value at the commencement of the voyage. In a fire insurance policy the value at risk may fluctuate several times during its currency, and upon loss occurring it is the established value on the day of the fire which governs the adjustment of loss in its relation to the co-insurance clause, or indeed to any phase of the adjustment where the question of value is material.

This value at the time and place of the fire may be determined in different ways in the case of buildings, stocks of merchandise, machinery, etc. A great number of cases decided in the courts make it clear that the fixing of value on buildings, dwellings, etc., is based generally on reinstatement, less depreciation. In this way full indemnity is given the owner. Thus, if a building burned at a time when real estate was depressed, the owner is protected from having to accept the forced sale value at that particular time as payment of the loss. On the other hand, it is recognized that the value of the building destroyed is not quite as great as that of a new one—hence the allowance for depreciation.

In the case of stocks of merchandise, the value is based on the actual market value at the time of the fire. In some cases the loss of the owner might not be market value, but the insurance company would have to submit strong evidence to prove this. In considering the loss in the case of machinery and other plant equipment the actual cost of replacement with similar machinery, less reasonable allowance for the wear and tear on the machinery before it was destroyed is the governing consideration. If the new machinery is more efficient than the old, some allowance should ordinarily be made for this.

Any sentimental value must be excluded in determining the loss. Consequential loss, such as an anticipated profit, made impossible by the fire, cannot be considered. This is distinguished from a profit actually realized before the fire occurs.

Northern Life Has $31,655,716 of Insurance

Figures submitted at the twenty-seventh annual meeting of the Northern Life Assurance Company in London this week, show that the total amount of the business in force has now reached $31,655,716, an increase during the year of $1,191,920. The assets of the company on the basis of valuation of the Insurance Department at Ottawa now amount to $4,796,672, according to the balance sheet.

The reserve calculated in accordance with the Insurance Act, 1917, now amounts to $4,098,825, and in addition, there is a further fund for protection of policyholders amounting to $551,905, being the total of the shareholders' capital and the surplus of the company.

The total income of the company for 1923 amounted to $1,231,611. This includes net premium income of $976,012 and also $229,702, net interest, rents and dividends.

The rate of interest earned on the net ledger assets was 6.85 per cent., which is regarded as highly satisfactory.

The rate of mortality experience was very favorable, being only 42 per cent. of that expected.

The company operates throughout the Dominion of Canada and is well represented in each province.

In a space of twenty years, since 1903, the insurance in force has increased from $3,586,160 to the present total, and the assets from $404,412 to over ten times that amount.

INSURANCE LICENSES

The Department of Insurance, Ottawa, has issued the following insurance licenses: To the Halifax Fire Insurance Co. and the British General Insurance Co., to sell automobile insurance, and the Halifax Fire Insurance Co., to transact sprinkler leakage insurance.

OSLER, HAMMOND & NANTON
WINNIPEG
Stocks and Bonds
Insurance
Mortgage Loans
Farm Lands

THE MUTUAL LIFE ASSURANCE COMPANY OF CANADA
WATERLOO, ONTARIO.
STATEMENT SHOWING THE PROGRESS OF THE COMPANY BY DECENNIAL PERIODS

YEAR	INCOME	ASSETS	PAID TO POLICYHOLDERS	BUSINESS IN FORCE
1873	$16,435	$23,144	$2,687	$701,100
1883	190,182	529,204	62,595	6,572,719
1893	626,208	2,570,820	212,828	17,751,107
1903	1,561,070	7,283,158	493,721	37,587,552
1913	4,169,660	22,252,724	1,396,445	87,392,027
1923	13,448,769	59,727,388	5,369,743	269,982,566

HUME CRONYN, President. CHARLES RUBY, General Mgr.

The Independent Order of Foresters
Organized 1874
TOTAL BENEFITS
Paid to Members and their Beneficiaries
$80,000,000.00
Policies Issued from $500 to $5,000

G. E. BAILEY, Secretary
W. H. HUNTER, President
G. R. COTTRELLE, Treasurer

The NORTHERN LIFE ASSURANCE COMPANY OF CANADA
ESTABLISHED 1897

PROTECTION—PERMANENT—PARAMOUNT

27th Annual Report

Extract from the Twenty-Seventh Annual Report of the Northern Life Assurance Company of Canada.

Insurance in Force	$31,655,716.00
Reserve on Government basis	4,098,825.00
Total Assets	4,796,672.42
Capital and Surplus (over Reserve requirements)	551,904.00
Average Interest Rate on Assets	6.85%

Mortality rate experienced was 42% of that expected.
The Company confines itself to the Dominion of Canada and during the past twenty-seven years has paid to satisfied policyholders the sum of $2,886,685.17.

THE NORTHERN LIFE ASSURANCE CO. OF CANADA.
Home Office — London, Ont.

The Canadian Order of Chosen Friends
A Government endorsed twenty-year paid-up plan.
Whole family life insurance at Government standard rates.
The best sick and funeral benefits.
Double sick benefits, by paying double rates.
An up-to-date child insurance department. Further particulars gladly furnished by corresponding with

WM. BENSON, Grand Councillor, 881 Queen St. W., Toronto, Ont.
W. F. CAMPBELL, Grand Organizer, Hamilton, Ont.
WT. F. MONTAGUE, Grand Recorder-Treasurer, P. O. Drawer, No. 349, Hamilton.

Penniless Old Men
An Imperial Endowment Policy makes it easy for you to escape their bitter experience

The IMPERIAL LIFE ASSURANCE CO. OF CANADA
HEAD OFFICE TORONTO

Outstanding Advantages

These are a few of the distinct advantages in providing for dependents or business obligations through the Great-West Life Assurance Company: Low rates; large profits; unassailable security; perfect service in every department; the utmost despatch in settling claims.

THE GREAT-WEST LIFE ASSURANCE COMPANY
HEAD OFFICE - WINNIPEG

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Trustee in Bankruptcy
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COLLECTIONS
OSCAR HUDSON & COMPANY
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to Estates being administered by it
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The Imperial Canadian Trust Co.
Executor, Administrator, Assignee, Trustee, Etc.
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Branches: Saskatoon, Regina, Edmonton, Calgary, Vancouver and Victoria.

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British America Assurance Co. (Incorporated 1833)
British Empire Underwriters Agency
St. Lawrence Underwriters Agency
Western Assurance Company (Incorporated 1851)
Head Offices: 22 Wellington St., East, Toronto
INLAND TRANSPORTATION
RIOTS and STRIKES EXPLOSION

THE CANADA NATIONAL FIRE INSURANCE COMPANY
HEAD OFFICE: WINNIPEG, CANADA
TOTAL ASSETS $2,928,337.62
TORONTO, 24 Adelaide St. W.
W.H.George, Superintendent of Agencies

SECOND OF SEVEN
Winnipeg is the headquarters of seven splendid life companies, all safe to insure with.
The Northwestern, although the youngest, was second to construct its own home office building.
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WINNIPEG, MAN.

THE WESTERN EMPIRE Life Assurance Company
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701 Somerset Building
Winnipeg, Man.
Branch Offices:
SASKATOON EDMONTON
CALGARY VANCOUVER

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10-12 EAST KING ST. TORONTO

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ROGERS GETTING READY TO PAY ON COMMON SHARES

Big Improvement in Company's Position in 1923

With profits of $380,381 comparing with only $116,493 for the previous year, the annual report of William A. Rogers, Ltd., will no doubt be well received by the shareholders. The profits reported were the best since 1920 and reflected improved conditions experienced by the silver industry. The president, S. J. Moore, reports that the company's business in various lines throughout the year was good and that the outlook for 1924 is very satisfactory.

The profit and loss account shows ample provision for reserves and after the payment of preferred dividends and taxes there is a substantial increase in the balance available. During the year the company was called on to pay $35,000 on account of dividend guarantee of the Canadian William A. Rogers, Ltd. Mr. Moore announces that it is planned to pay during 1924 the arrears of dividends of 7 per cent. in dividends on the preferred stock, payments to be paid quarterly. This will wipe out arrears of dividends in the preference shares and leave the company in a position to consider a distribution on the common stock. The president also announces that it is probable the company will be called upon to make a final payment under the agreement with Canadian William A. Rogers which will terminate on April 1, 1924. Following are comparative figures from the profit and loss account:

	1923	1922
Profits	$380,381	$116,092
Bal. forward . ..	107,367	218,470
Less Fed. taxes ..	......	294
	107,367	218,176
	$487,748	$334,268
Plant reserve	112,124	113,305
Pref. dividends ..	78,596	78,596
To Can. Rogers .	35,000	35,000
Federal taxes ...	46,745	......
Balance	215,283	107,367
	$487,748	$334,268

The company's assets are valued at $4,949,091, compared with $4,782,699 at the end of 1922. Liquid assets are valued at $2,427,207. Deferred assets at $58,026 and fixed assets at $2,463,858. The valuation given patents and goodwill were shown to be unchanged, $850,000. Plants are valued at $1,453,357, and investments at $160,501.

CAN. FOUNDRIES AND FORGINGS IN STRONGER SHAPE

Profits Increased Somewhat Despite Much Foreign Competition

From Our Own Correspondent.

MONTREAL.—Despite somewhat unsatisfactory business conditions in 1923, Canada Foundries and Forgings was able to add considerably to its earnings, and to bolster up its liquid position by a small amount.

Operating income reached $93,318. as compared with $74,315 in the previous year, but there was also the substantial sum of $36,000 received as a payment on arrears of interest of the Delaney Forge and Iron Corporation, which brought total income to $129,657.

	1923	1922	1921
Op. Inc. . . .	$ 93,318	$ 74,315	x$ 3,705
From Invst.	36,339	27	12,091
Tl. Inc. . .	$129,657	$ 74,342	$ 8,386
Adm. Exp. .	26,241	29,406	† 55,597
Balance . .	$103,416	$ 44,936	x$ 47,211
Bond Int. . .	12,404	8,155	6,757
Balance . .	$ 91,012	$ 36,781	x$ 53,968
Other Int. .	19,360	19,469	22,708
Net Inc. . .	$ 71,652	$ 17,312	x$ 76,676
Pfd. divs. .	......	......	5,600
Balance . .	$ 71,652	$ 17,312	x$ 82,276
Invent. Res.	47,515	......	200,000
Surplus . .	$ 24,137	$ 17,312	x$282,276
Prev. surp.	947,912	930,600‡	1,212,876
P. & L. sur.	$972,049	$947,912	$930,000

x Deficit.

† Includes income tax for 1919 and 1920, $18,465.

‡ As adjusted.

Working capital position improved during the year, as this comparison indicates:

	1923	1922	1921
Curr. assets	$1,020,321	$975,993	$935,489
Curr. liab.	468,677	443,323	465,376
Net Wkg. Capital	$ 551,644	$532,670	$470,113

Regarding the allotment of $47,500 to inventory surplus, the president, W. M. Weir, told the shareholders at their meeting in Brockville this week:

It has been deemed advisable to allot a portion of the surplus as a reserve against inventories, in view of the fact that prior to 1921 there had been a moderate accumulation at all three of the company's plants of certain lines, both in raw materials and finished products, which have now become obsolete for the company's purposes. It was hoped that these might have been disposed of without loss, but such has not been the case, and the reserve mentioned is therefore felt to be necessary.

While there has been a gratifying increase in the output at all three of the company's plants, as compared with 1922, it must be stated that business last year throughout Canada was, as a whole, inactive, and profits below the average, due largely to keen competition from British and American sources.

Empire Life Starts New Year in Sound Position

Figures presented at the annual meeting of the Empire Life Insurance Company in Toronto last week show that the company has written $1,428,475 of insurance, with an average premium per thousand of insurance of $30. During the year, which is its first in business, no death losses whatever were incurred. The surplus over all liabilities is $95,763, including $61,330 of paid-up capital.

The company has appointed E. Robinson manager of its Toronto agency. Mr. Robinson has been with the Security Life for four years, and was formerly with the Mutual Life and Citizens.

OTTAWA "POWER" REPORT IS BASED ON NEW STRUCTURE

Earnings Increased Nicely Over 1922 Figure

From Our Own Correspondent.

MONTREAL.—A very comprehensive survey of the benefits to be derived by Ottawa Light, Heat and Power, from the re-financing carried out during the year is a feature of the company's annual report. On this point, the president, Thomas Ahearn. told the shareholders:

(a) Reduces outstanding bonds from $2,925,000 to $2,080,500—being a reduction of $844,500.

(b) Reduces interest and sinking fund charges from $258,250 to $149,750—a reduction of $118,500.

(c) Reduces New York Funds payable annually from approximately $200,000 to $78,500—a reduction of $121,500.

(d) Provides from the proceeds of the sale of $500,000 bonds, funds to pay off bank and for working capital;

(e) Provides also free in the company's treasury, bonds to be sold as and when required, without restrictions, $350,000;

(f) Provides a further balance of bonds to be held by the trustee to be issued against 75 per cent. of capital expenditure—$775,000;

(g) Borrowing power on bonds previously standing at $325,000 increased to $1,625,000;

(h) Replaces a large portion of bonded indebtedness by an issue of preferred stock, which preferred stock is permanent capital, and does not require repayment through sinking fund or other charges;

(i) Provides means of interesting customers and the Ottawa public in preferred shares of our company.

The company showed a nice increase in both gross and net revenues during the year. Net revenues before depreciation amounted to $339,723, as compared with $324,428 last year. Further comparative earnings figures are as follows:

	1923	1922
Gross rev.	$1,718,403	$1,685,381
Expenses	1,171,680	1,140,847
Net revenue	$ 546,722	$ 544,534
Interest: bonds ..	174,159	189,935
Other	32,840	30,172
Net profits	$ 339,723	$ 324,428
Deprec.	97,574	93,741
Bad debts	......	......
Taxes	25,581	......
Tax adjustment ..	65,664	......
Dividends	229,772	210,000
Bal. forward	x$ 78,867	$ 3,833
Prev. surplus	225,664	221,831
P. & L. surplus .	$ 146,797	$ 225,664

x Deduction.

That rather extensive additions to plant have been made is indicated by an increase in property valuation from $8,627,000 to $8,855,000. The balance sheet is naturally entirely revised to care for the rearrangement of the financial structure during the year.

TRAVELERS APPOINTMENT

R. G. Atkinson, formerly field assistant of the Travelers Insurance and Travelers Indemnity Companies, has been appointed to the executive staff of the Ontario branch, in the capacity of assistant manager. This appointment is effective from February 1st.

SASKATCHEWAN CREAMERY HAD SPLENDID YEAR

Big Increases in Business in All Lines Shown

With every department showing a substantial increase for the year, the Saskatchewan Creamery Company of Moose Jaw, presented a very satisfactory report at the annual meeting. The total butter made was higher by 23.4 per cent., cream sales were up 14.1 per cent., milk and cream sales increased 46 per cent., and print butter sales 20.2 per cent. The total sales amounted to $1,082,360, or an increase of 22 per cent. over 1922. Every branch showed a healthy increase over the preceding year and all the plants have been kept in a high state of repair. The Regina branch won the coveted honors of the year—the prize for the highest average score of butter, all creamery companies competing.

The first month of 1924 shows an average increase in butterfat receipts of 60 per cent. over the preceding year and everything points to this being one of the best years in the history of the company.

The company's products have found a ready market both at home and abroad and many complimentary letters were received during the year from England and the United States on the high quality of butter shipped. J. A. Caulder, the president and general manager, is considered one of the best creamery men in Canada. An expert has been placed at the head of each department and the executive is supported by a board of directors composed of the outstanding business men of the different points where the company is represented.

Dividends and bond interest were paid for 1923 from the year's earnings and a satisfactory amount transferred to surplus account. The balance sheet shows assets of $982,390 and surplus of $30,539. Liquid assets during the year showed an increase of $35,784. The value of property, plants and shipment, increased $87,336 during the year representing new capital expense chiefly in connection with the new plant at Regina. Increased capital was made available largely through an increase of $105,500 in the capital stock.

Montreal Loan Had Increase in Earnings

Increased earnings and profits are reported by the Montreal Loan & Mortgage Company for 1923. Following is a summary of the figures from the profit and loss account:

	1923	1922	1921
Net prof.	$ 86,236	$ 83,674	$ 87,318
Bal. fwd..	65,563	59,890	50,574
	$151,799	$143,564	$137,892
Dividn. .	78,000	78,000	78,000
Balance .	73,799	65,563	59,891
	$151,799	$143,563	$137,891

Six Years' Record

Year	Paid-up Capital	Profits	Div.	%Profits Av. Cap.	Ern. Rt.
1923 .	$600,000	$86,236	12+1	14.3	5.9
1922 .	600,000	83,674	12+1	13.9	5.7
1921 .	600,000	87,318	12+1	14.5	6.0
1920 .	600,000	92,150	12+1	15.3	6.6
1919 .	600,000	87,931	10+1	14.6	6.6
1918 .	600,000	85,965	10+1	14.3	6.4

The company has total assets of $1,824,907, of which $1,816,825 is loaned on real estate mortgages. The capital stock is $600,000 and the reserve fund $800,000. Liabilities to the public are small, including a special deposit of $170,412 and sterling debentures of $146,000.

IMPERIAL LIFE'S NEW OFFICE

The Imperial Life Assurance Co. has opened a new office on Bloor Street, Toronto, to take care of increasing business in the city. The office will be in charge of E. H. Pooler, who started with the Imperial Life in the agency department in 1913. Since 1920 he has been at the Montreal office and last year he produced more than $600,000 of new business.

March Dividends

Bond Interest	10,833,587
Dividends	$14,646,966
	$25,480,553

BOND INTEREST DUE IN MARCH

Company	Rate	Due	Amount
Abitibi Pulp	8	1931	$ 167,336
Alabama T. L.	5	1962	341,722
Brand. Henderson .	6	1939	20,940
Brompton Pulp ...	6	1939	28,146
Can. Steel Foundr.	6	1936	56,283
Canadian Salt . ..	6	1934	9,870
Elect. Develop. ...	5	1933	229,387
Dom. Iron & Steel	5	1939	142,800
Dom. Sewer Pipe .	6	1927	1,710
Dom. Textile	6	1925	98,025
Do., ...	6	1949	193,470
Dunlop Tire	6	1927	7,434
Hillcrest Collieries	5	1940	8,125
Lake Sup. Paper .	6	1941	138,807
Mexico Trams.	5	1956	252,187
Montreal Trans. ..	6½	1924	237,250
London St. Ry. ..	5	1925	11,875
N. S. Clay	6	1930	912
N. B. Power	5	1937	46,250
Ottawa Gas	6	1939	25,500
Robin, James & Whit.	6	1930	6,042
South Can. Power	6	1948	139,125
Span. River Pulp..	6	1929	44,040
Toronto Paper ...	6	1942	6,906
Winnipeg Elec. ...	6	1943	97,500
West. Can. Flour.	6	1928	19,413
Do.	6	1931	14,622
West Koot. Pr. ..	6	1940	33,738
Corporation Bonds			$2,379,415
Municipal Bonds..			x3,400,000
Provincial Bonds..			x2,800,000
Third War Loan...	5	1937	2,254,172
			$10,833,587

x This figure is determined by dividing by 12 the estimated total interest payable during the year on these issues.

MARCH DIVIDEND PAYMENTS

Company	Rate	Date	Amount
Belding, Cort., pref.	1¾q	15	$ 15,142
Brand. Hend., com	1q	1	11,799
Brazilian, com. . ..	1q	1	1,065,810
Confed. Life	5q	31	5,000
Consol. Rubb., pref.	1¾q	31	52,500
Crows Nest Coal ..	1½q	1	93,189
Can. Pac. Ry., com.	2½q	31	6,500,000
Do., pref.	2s	31	1,613,638
Detroit Un. Ry. ..	1½q	1	230,625
Dom. Radiator, pref.	1¾q*	1	27,097
Hollinger Mines ..	1m	26	246,000
Imperial Oil	75c.	1	1,188,156
Inter. Milling, pref.	1¾q	1	19,338
Imp. Tobacco, com..	1½q	1	9,375
Do., pref.	3s	1	270,900
Keeley Mines	8+4s	15	240,000
Lake of Wds. Mill., c.	3q	1	105,000
Do., pref.	1¾q	1	26,250
London Life	3q	31	3,000
Montreal Loan	3+1q	15	24,000
Montreal Ctn., com.	1½q	15	44,979
Do., pref.	1¾q	15	52,475
Mutual Oil	12½cq	15	266,526
Ogilvie Flour, pref.	1¾q	1	35,000
Ottawa & Hull P., p.	1¾q	15	26,250
Port Hope San., prf.	1¾q	1	7,980
Sher. Williams, pfd.	1¾q	31	60,000
Do., pref.	1¾q	31	59,937
West. Can. Flour ..	2q	15	57,500
			$12,357,466
Banks			
Commerce	3q	1	$450,000
Hochelaga	2½q	1	100,000
Montreal	3q	1	817,500
Royal	3q	1	612,000
Toronto	3q	1	150 000
Union	2q	1	160,000
			$2,289,500

q—Quarterly.
s—Half yearly.
m—Monthly.

British Empire Steel Corporation

Limited

Report of Board of Directors to the Shareholders

To be presented at the Annual Meeting on the 27th March, 1924.

Your Directors submit herewith the Consolidated Balance Sheet of the Corporation and its Constituent Companies as at the 31st December, 1923, and the Consolidated statement of Profit and Loss and Surplus Account for the year ending on that date, certified by the Auditors of the Corporation, Messrs. Price, Waterhouse & Co.

BALANCE SHEET

The net increase in the cost of the properties of Constituent and Subsidiary Companies during the year is $1,280,712. This is the difference between the total expenditure, $2,293,418, and $1,012,706, the amount added to reserves for depreciation, depletion and renewals. The total amount of these reserves is now $28,023,102, and the net cost of properties is $134,201,384.

Against these properties there are funded and mortgage debts amounting in all to $37,800,265, or slightly over 28 per cent. of their net cost as shown on the Balance Sheet. There has been an increase of $1,154,774 in the amount of bonds outstanding. During the year the balance of the issue of Cumberland Railway and Coal Company bonds amounting to $1,660,000 were sold and bonds of the par value of $505,226 were redeemed through the operation of the several sinking funds.

The relation of current and working assets continues to be satisfactory, the proportions being nearly five to one, although the excess of assets over liabilities is less than it was a year ago. One reason for this is that in last year's Balance Sheet there was a large amount of cash which had been received in December from the sale of bonds, which has since been disbursed, the greater part passing from current to fixed assets. The combined amounts of accounts receivable and cash items, $6,045,775 exceeds the aggregate obligations of the Companies and the Corporation in respect to Bank loans, accounts payable, accrued interest on bonds and dividends our First Preference and Preferred stocks by $1,437,406, or more than 30 per cent.

PROFIT AND LOSS AND SURPLUS ACCOUNT

The total amount available on this account including balance carried over from last period as shown on the statement herewith is $5,468,544.67. After making provision for depreciation and exhaustion there remained a balance of $4.356,029.40 and after deducting payments for interest and discount on Bonds and Debenture stock a balance of $2,377,555.30. After provision of amount required to pay all dividends accrued upon 1st Preference Stock of the Corporation and the Preference and Preferred shares of Constituent and Subsidiary Companies outstanding there remained a balance of $1,031,031.07 at credit of Surplus Account on 31st December, 1923. This amount added to Surplus of Constituent Companies carried forward $21,784,870.32, makes the Consolidated Surplus $22,815,901.39.

OPERATIONS AND BUSINESS

The results of the Operations of the Constituent Companies were more satisfactory in every way than they were in the previous year. The output of coal was increased 857,325 tons. This increase was general and not confined to any particular operation. A considerable part was due to greater activity in the iron and steel trade.

This was an advantage to the coal business in two ways. The increased output had a favourable influence on cost of production and the use of slack coal by the Steel Works furnished the Companies with an outlet for any surplus of that grade which they had to dispose of.

Domestic business in iron and steel though greater in volume than in the previous year was still unsatisfactory both in volume and results. Competition with imported commodities is more difficult to meet than formerly when the customs duties afforded greater protection to Canadian producers. The specific duties upon imports of iron and steel were always lower in proportion to the value of such materials than the average ad valorem duty upon other materials, and now that commodity values have largely increased this disparity in proportion has become very marked. In 1911 the average duty collected on all classes of dutiable goods was 26.713 per cent. The rates upon those classes of iron and steel imports which are dutiable varied from 6 to 26 per cent. and when used for specific purposes such as for shipbuilding, the manufacture of agricultural implements and many other purposes, 99 per cent. of the duty collected is refunded. Several classes of manufactured steel are absolutely free. Last year the average rate of duty collected on all classes of dutiable goods was 24.92 per cent. The rate upon imports of iron and steel which were subject to duty varied from less than 1 per cent. to above 18 per cent. British pig iron paid 7 per cent.; the maximum rate on steel plates was 7.6 per cent.; on structural steel not less than 35 lbs. to the yard 7.33 per cent.; steel rails paid 18.8 per cent. This condition is not only unfair to the manufacturers of iron and steel in Canada. It has also an adverse effect upon the revenues of the country.

Your Directors have brought these anomalies in the tariff to the attention of the Government and have urged the necessity of taking steps to remedy a condition which must be admitted is not in the best interest of the country. There is no reason why iron and steel should yield a lower percentage of revenue to the country than the average of all other classes of dutiable goods and it is of the greatest concern to all classes in the community that the iron and steel industry in Canada shall have all the advantage that is incidental to the imposition of duties that are at least sufficient to produce a fair share of the customs revenue.

A considerable trade in wire and wire nails was done with New Zealand where the Corporation has some advantage in the way of transportation and preferential duties.

Owing to the occupation of the Ruhr by France early in the year shipments of ore to Germany were greatly reduced. Some sales were made in the United States and Great Britain but the shipments for the season did not exhaust the tonnage mined for export in the early part of the year.

CHANGES IN ORGANIZATION

During the year, Mr. D. H. McDougall resigned the office of Vice President, and Dr. W. L. McDougall resigned from the Board of Directors. On 19th December, Mr. J. E. McLurg, previously General Manager of Halifax Shipyards Limited, was appointed Vice President in charge of the operations of Constituent and Subsidiary Companies.

Being convinced of the importance of strengthening the organization of the Steel Producing Works, your Directors arranged with Mr. Geo. F. Downs, formerly President of the Lackawanna Steel Company, to become a Director of the Corporation and a member of the Executive Committee and later secured the services of Mr. Harry J. Kelly, formerly with Bethlehem Steel Company, who was appointed General Manager of Steel Works and entered upon his duties on 23rd January, 1924.

PENSION FUND

Your Directors have instituted a fund for the payment of pensions to employees who have given extended service to any of the constituent or subsidiary companies and who through age or infirmity are no longer able to continue at work. Further means for the benefit of the working force are now under consideration.

INDUSTRIAL RELATIONS

The necessity for readjustment of wages due to the changing conditions of industry has caused a larger amount of unrest than usual amongst wage earners everywhere and your Companies have had their full share of difficulty in connection with the problems which have arisen from this cause.

During the past year two serious disturbances occurred which were the cause of much loss to both the Companies and their employees.

Your Directors are hopeful that better conditions have now been established and that hereafter more sympathetic relations will exist between the Management and the working force.

On behalf of the Board of Directors,

Montreal, P. Q., 20th February, 1924.

R. M. WOLVIN, President.

Consolidated Balance Sheet as at December 31st, 1923

ASSETS

Cost of Properties:			
Represent the Ore and Coal Properties, Plant, Buildings, Machinery and Equipment, etc., of the Constituent Companies, the aggregate value of which is supported by independent Appraisals (less Reserves for depreciation and exhaustion of Minerals)			$134,201,383.89
Investment in Capital Stocks of, and advances to, other Companies			790,465.33
Cash in hands of Trustees for Bondholders			173,058.60
Bonds purchased for Sinking Funds			134,465.84
Current Assets:			
Inventories of Finished Products, Goods in Process and Materials and Supplies, less Reserves		$ 15,107,159.55	
Trade Accounts and Bills Receivable, less Reserves		4,886,638.51	
Other Accounts Receivable		541,942.29	
Investment in War Bonds		39,236.40	
Cash on hand and in Bank, and Call Loans		573,757.14	21,152,938.89
Deferred Charges:			
Discount on Securities, Development Expenditures, etc.		$1,252,196.91	
Insurance and other Expenses paid in advance		504,829.13	1,757,026.04
			$158,209,355.61

LIABILITIES

Capital Stock of Corporation:			
7% Cumulative First Preference "B"		$ 7,838,400.00	
7% Cumulative Second Preference		57,350,000.00	
Common		24,450,000.00	
		$89,638,400.00	
Less: Held by Constituent Companies:			
7% Cumulative Second Preference	$ 7,391,425.00		
Common	3,144,600.00	$ 10,536,025.00	$79,102,375.00
Preference Stock of Constituent Companies:			
7% Dominion Coal Co., Limited		$2,799,400.00	
7% Dominion Iron & Steel Co., Limited		3,522,800.00	
6% Dominion Steel Corporation, Limited		4,705,500.00	
8% Nova Scotia Steel & Coal Co., Limited		814,000.00	
6% Eastern Car Company, Limited		107,100.00	11,948,800.00
Acadia Coal Company, Limited			
Stock outstanding			113,300.00
			$91,164,475.00
Capital Stock Reserve:			
Par value of the 7% Cumulative First Preference Stock Series "B" reserved for exchange of the outstanding Preference Stocks of Constituent Companies		$ 12,111,600.00	
Less—Par value of the Preference Stocks of these Companies outstanding		11,948,800.00	162,800.00
Funded and Mortgage Debt, represented by Bonds and Debenture Stock of the Constituent Companies			37,800,264.92
Deferred Payments on Properties			400,400.00
Current Liabilities:			
Bank Loans		$ 1,365,881.69	
Current Accounts Payable, Wages and other Accrued Liabilities		2,401,988.07	
Accrued Interest on Bonds and Debenture Stock		580,332.63	4,348,202.39
Reserves:			
Furnace Relining and other Operating Reserves		$ 765,211.86	
Reserve for Contingencies		482,933.19	
Dividends accrued on the First Preference Stock of the British Empire Steel Corporation, Limited, and on the Outstanding Preference Stocks of the Constituent Companies		260,166.86	1,508,311.91
Surplus at the date of Organization, Balance as at December 31st, 1922			21,784,870.32
Surplus from date of organization to 31st December, 1923			1,031,031.07
			$158,209,355.61

Note: No dividends have been paid on the 7% Cumulative Second Preference Shares of the Corporation since the date of their issue, and no accrual therefore has been made on the balance sheet.

We have examined the Books and Accounts of the British Empire Steel Corporation, Limited, and its Constituent Companies for the year ending December 31, 1923, and have been furnished with all the information and explanations which we have required; and we certify that, in our opinion, the above Consolidated Balance Sheet at December 31, 1923, is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Corporation and its Constituent Companies, according to the best of our information and the explanations given to us and as shown by the books of the various Companies.

Montreal, February 15th, 1924.

PRICE, WATERHOUSE & CO., Auditors.

CONSOLIDATED STATEMENT OF PROFIT AND LOSS AND SURPLUS ACCOUNT FOR THE YEAR ENDING 31st, DECEMBER, 1923

Surplus Balance brought forward 1st January, 1923		$1,024,197.85
Total Earnings of the Properties for the year after deducting all Manufacturing, Selling and Administration Expenses, but before charging Sinking Funds, Depreciation and Interest on Bonds and Debentures		4,444,346.82
		$5,468,544.67
Deduct: Provision for Sinking Funds, Depreciation and Depletion of Minerals		1,112,515.27
		$4,356,029.40
Deduct also: Interest on Bonds and Debenture Stock	$1,910,269.36	
Proportion of Discount on Bonds written off	68,204.74	$1,978,474.10
Balance		2,377,555.30
Less: Dividends on First Preference Shares of Corporation and Preferred Stocks of Constituent and Subsidiary Companies		1,346,524.23
Surplus from April 16th, 1921, (the date of organization) to 31st December, 1923		$1,031,031.07
Surplus at date of organization, Balance as at 31st December, 1922		$21,784,870.32

TO INCREASE THE BARRIER AGAINST CANADIAN WHEAT

Because of Advantages of the Canadian Farmer

INTERESTING FIGURES

Statistics Submitted at Washington Leave no Doubt as to the Secure Position of Canadian Farmer

From Our Own Correspondent.

NEW YORK.—The president, acting under the provisions of the Fordney-McCumber tariff, will, it is expected, before the close of the week, order an increase in the tariff on Canadian wheat. What his action will be in the case of flour does not appear to be known. While the investigation made by the tariff commission into the cost of producing wheat and flour in Canada indicated quite clearly that an increase in the tariff on wheat would be justified from the American point of view, it did not indicate that it would be justified in the case of flour. Much to the surprise of every one, it was found that the report proved conclusively that the present tariff on flour more than protected the American miller and that any further increase in the tariff would only play into the hands of those factions in Congress who are already clamoring for an investigation of the milling and baking industry on the ground that both industries, thanks to the present tariff, are making inordinate profits at the expense of the American public. It is, therefore, thought probable that the president is in a quandary as to the best action to take in regard to the tariff on flour.

Canadian Costs Lower

A careful study of the details of the report of the tariff commission upon which the president will base his recommendations reveals some interesting facts regarding the cost of making and selling both wheat and flour in Canada and the United States.

In the case of wheat, it shows that the yield per acre in the case of the Canadian districts investigated by the commission's representatives was much higher than it was in the United States. The average yield per acre over a three-year period in Canada ran from 33.3 bushels per acre in the case of Westlock, Alta., to 13.7 bushels in the case of Melita, Man. Alberta on the whole made a better showing than either Saskatchewan or Manitoba.

In the case of the United States, the yield per acre on a three-year average ran from 18.5 bushels per acre to as low as 5.8 bushels per acre.

Costs Per Bushel

So far as costs per bushel were concerned, the cost in the case of Alberta ran from seventy cents to fifty-one cents, before the charge of land was added. These figures in the case of Saskatchewan were eighty-nine to fifty-seven cents, and in the case of Manitoba from eighty-two cents to fifty-six cents.

With the land charge added to these figures, on a cash rental basis, the range of costs per bushel, in each of the provinces named were as follows:

Alberta, from 86 to 64 cents a bushel.

Saskatchewan, from 1.12 to 71 cents a bushel.

Manitoba, from 1.02 to 68 cents a bushel.

Similar statistics for the United States indicated that the costs per bushel before the addition of a charge for the land upon which the wheat was grown ranged from as high as $1.57 to as low as 63 cents. With the land charge added the range of costs was from $1.96 to 71 cents.

The commission also made a careful study of the cost of growng wheat per acre in Canada and the United States. This indicated that the net cost of growing an acre of wheat in the United States ranged from $15 to as low as $8.29, while in Canada the cost per acre ranged from $16.71 to $10.73. A detailed analysis of these costs per acre apparently indicated that the higher Canadian costs per acre were due to higher threshing and marketing costs, presumably the outcome of the fact that Canadian yields per acre are so much higher than American.

JAPANESE ORDERS FOR CANADIAN FIRMS

Montreal Firm Are Appointed Buying Agents for Eastern Trading House

From Our Own Correspondent.

MONTREAL.—Evidence of large Japanese orders for Canadian manufacturers comes in the interesting announcement that Guy Tombs, Limited, a local firm of transportation experts, have been appointed to represent a large British trading firm in the East in the placing of orders in Canada for Japanese clients. Mr. Tombs considers this an excellent opportunity for Canadians to get a foothold in the Japanese market, for he is convinced that there will be substantial orders, especially for construction materials, for the next ten years.

It will recalled that a large block of the $300,000,000 Japanese loan was sold in Canada, and the promise was made that the money raised in Canada should be spent in this country.

Some of the Canadian products that are needed in Japan, according to Mr. Tombs, are asbestos, cement, iron and steel nails, rods, wire, pipes, rails, tool steel, building papers, light weight papers, flour, and, of course, numerous other commodities.

No Need for a Special Commission on Coal Rate

Looking patricularly to the supplying of the people of Ontario with Alberta coal, the Ontario government will apply to the Dominion Railway Commission for an investigation of fuel rates from the Western and Maritime provinces.

This, THE FINANCIAL POST is informed, is all that is necessary to secure a thorough investigation of the whole question by a thoroughly competent body. There is no need whatever for the appointment of an expensive special commission as is being agitated for by a London newspaper.

OIL PROMOTER HELD ON THREE CHARGES

H. M. Lickley, of Peace River Oils, Taken into Custody Over Promotions

Huge M. Lickley, head of Peace River Oils, Anglo-Canadian Oils Kent Oils, and two or three other such promotions, is held in Toronto on three charges arising out of transactions in connection with these concerns. The charges are conspiracy to defraud, omitting to make book entries, and theft. He is in jail, being unable to supply the heavy bail, $20,000, which the Crown asked.

All Lickley's books have been seized, and the Crown has written to every shareholder asking information. The case came to the attention of the Crown when a Mrs. West complained that she sent her Peace River stock to Lickley for exchange into Anglo-Canadian stock, and couldn't get her certificate back. Crown investigators found there was no such company as Anglo-Canadian, no charter having been issued.

The police got hold of Lickley's books, and when Crown Attorney McRuer got cross-examining him in the West case, on a theft charge, he got information which led to his having the arrest made when the other case was disposed of. Among the facts brought out was that no treasury stock of Peace River Oils had been sold. Lickley sold his own stock.

Peace River Oils had a couple of producing wells at one time, but these were foreclosed upon, and the concern is said to have no assets to-day.

Steel Trust Deposited 20% With the Courts

An amount equal to 20 per cent. of the creditors' claims against L. R. Steel enterprises, has been deposited in the bankruptcy courts, Buffalo, by the shareholders' protective trust. This, it is stated, is taken as an assurance that the trust will take over the assets.

It is stated that steps have already been taken looking toward the securing of an efficient management for the re-organized company.

LAKES FREIGHT REGULATION HAS NOT WORKED OUT

Measure Due for Overhauling During the Session

OTTAWA.—The Inland Waters Freight Rates' Act is among the things due for an overhauling during the parliamentary session. The section providing that any shipping company or shipowner engaging to carry grain must, before entering into a contract to carry the same, file with the grain commission a tariff of the rates charged, has not worked out well insofar as the American vessel men are concerned.

The fact of the matter is that on this point the legislation was not in accordance with the recommendation of the McLean commission, which recommended:

That all persons or corporations operating vessels carrying grain between Candian ports shall be obliged to file with such Commission maximum rates. That the Commission shall have power to approve or disapprove of such maximum rates. That provision shall be made for alteration of such rates to suit different portions and conditions of the shipping season. And that rates in excess of the maximum shall be illegal.

The record of lake freight rates issued by the Dominion Bureau of Statistics for the last five years does not show that the legislation has had much effect in reducing rates below what they were in 1922, when they were the subject of much complaint. In 1923 the average rate per bushel for the season from Fort William or Port Arthur to Bay ports was 4.02, and in 1922 it was 4.13; but to Buffalo the average for the season in 1923 was 4.41, as against 4.19 in 1922; to Port Colborne the average was 4.22, as against only 3.81 in 1922; to Montreal the average was 10.96, as against 10.60 in 1922; from Port Colborne to Montreal the average was 6.09, as against 6.41 in 1922.

The figures do show, however, that 31,318,000 bushels more of grain were carried in Canadian bottoms last season than in 1922.

The Grain Movement

OTTAWA.—Preliminary figures showing the receipts at Head of the Lakes, also Vancouver, B.C., for the period from September 1, 1923, to February 15, 1924.

	Fort William & Port Arthur	Vancouver
Wheat	234,605,767	24,116,619
Oats	25,535,586	130,412
Barley	10,552,774	......
Flax	3,462,363	......
Rye	4,227,239	157,730
Total	278,383,729	24,404,761
Same period 1923	242,784,936	11,453,328
Increase over last year..	35,598,793	12,951,433

Canada's Over-built Industries

There is no more disturbing or pressing problem in Canada at the present time than the problem of our overbuilt industries.

Canada has cement plants able to turn out 14,630,000 barrels of cement a year, while the total consumption of cement at the present time is approximately 7,088,000 barrels a year.

Canada has railway car building plants capable of turning out twice as many cars as can be normally taken into service by Canadian railways in any one year. Some car building plants are idle, notably the Fort William plant of the Canadian Car and Foundry Company, which represents investment of many hundreds of thousands of dollars, which has scarcely been used since it was built but which would employ hundreds of men if orders could be obtained to get its wheels turning.

There are in the country numerous shoe factories that are without orders because the shoe producing capacity of Canada is in excess of the possible shoe-wearing capacity of the people at present in the country, altogether apart from the large importations of British and American shoes.

Canada has big rail mills that have at one time or another given employment to thousands of workers but which are rusting on small orders. In the iron and steel industry there are numerous other plants that cannot find business in Canada sufficient to keep their machines and men busy.

Only in the great exporting industries, such as pulp and paper manufacture and flour milling, are Canadian factories able to keep busy.

Outside of industry, the country's superstructure of business is large enough to handle much more than the available business. The railways are notoriously over-extended and parallel lines in sparsely-settled districts are competing against each other for traffic that is not sufficient to support one rather than two or three lines.

Cities, too, are overbuilt. In some Canadian communities there are street car lines stretching out into suburban areas that scarcely have a shack to provide a stray passenger, and there are paved highways running along for many furlongs through grassy meadows.

This is a hurried survey of the overbuilt economic superstructure of Canada. It is a costly plant to carry, for just as an idle horse in the stable eats his head off and idle machinery in a plant wipes out profits in interest and depreciation charges, so do idle plants and idle railway lines in a country run away with corporate profits and governmental revenues. A large part of the losses we can charge up to experience, but simply admitting our mistakes of over-expansion and paying the price is not enough. An industrial leader with an idle machine hunts around for business to get the machine running, and Canada will find the solution of most of its economic problems in finding ways and means of putting its idle plant to use.

There are some queer theories offered to accomplish this laudable aim. Some classes of manufacturers think that the only solution of their problems is immediate upward revisions of the tariffs that will cut off imports of foreign goods and force Canadians to buy Canadian-made products. Admitting the need of consideration for certain groups, it must be said that wholesale establishment of high tariffs will not solve this problem, for high tariffs will not provide enough business to keep those industries busy that are built up beyond the entire consuming needs of the country, nor will high tariffs provide the national railways of the country with traffic to keep them busy.

Some city councils and other public bodies dominated by labor leaders seem to think that the problems of the country may be solved by stopping all immigration and thus by having fewer people in the country provide less competition for the jobs that offer themselves. Nothing could be more short-sighted.

So many industrial, railway and financial leaders have expressed their ideas of the remedy for the cure of Canada's economic ills during the past few years that it is a wonder the country is not unanimous on the subject. Canada must have a larger home market for its factories and the only way it can develop that larger home market is by getting enough people into the country to more than compensate for the people who are leaving the country. Practically every man in Canada to-day would be far better off if there were twice as many people in the country. That fact is so obvious, it seems incredible that public bodies will go on record against immigration.

Canada has played with immigration too long. Now that the people in charge of our affairs at Ottawa are swinging broadly into a policy of getting people into the country and the railways and similar organizations are getting powerful campaigns under way to attract new people, it is essential that every individual or organization in Canada that can exert influence to the end of promoting immigration should do so. This means that city councils should not send cablegrams to England saying that there are no jobs in Canada for immigrants; it means rather a revival of that optimistic, co-operative spirit that seemed to brighten every Canadian action and incident at the time Sir Clifford Sifton was bringing thousands of new citizens to Canada before the war.

Quack solutions of the problem of our idle industries ought not to be allowed to have their sway. Canada will find it worth while to concentrate on the real solution that can be summed up: More men and more money.

TENDER FOR DEBENTURES

TOWN OF DRYDEN

TENDERS will be received by the undersigned until the 15th day of March, 1924, for the purchase of $30,000.00 6% debentures payable in thirty equal annual payments of principal and interest, for the purpose of installing a system of water works in the Town of Dryden, Ontario.

The highest or any tender not necessarily accepted.

J. E. GIBSON,
Clerk and Treasurer.

Dated at Dryden this 20th day of February, 1924.

The Canada Landed and National Investment Company, Limited

DIVIDEND NO. 148

NOTICE IS HEREBY GIVEN that a DIVIDEND OF TWO AND ONE-HALF PER CENT., (being at the rate of ten per cent. per annum) on the amount paid up on the Capital Stock of this Company, has been declared for the quarter-year to the thirty-first day of March, 1924, and that the same will be payable at the office of the Company, 23 Toronto Street, Toronto, on and after the first day of April, 1924, to Shareholders of record at the close of business on the fifteenth day of March, 1924.

By order of the Board.

EDWARD SAUNDERS,
Managing Director.

Toronto, February 27th, 1924.

THE SHERWIN-WILLIAMS CO. of Canada, Limited

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that the 51st quarterly dividend of 1¾%, being at the rate of 7% per annum, for quarter ending February 29th, 1924, upon the Preferred Stock of the Company, has been declared payable to Shareholders of record the 15th day of March, 1924, and that cheques will be mailed on March 30th next.

Books not closed.

By order of the Board.

J. H. GORDON,
Secretary-treasurer.

Montreal, February 26th, 1924.

THE SHERWIN-WILLIAMS CO. of Canada Limited

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that Dividend Number 14 of 1¼%, for quarter ending February 29th, 1924, upon the Common Stock of the Company, has been declared payable to Shareholders of record the 15th day of March, 1924, and that cheques will be mailed on March 30th next.

Books not closed.

By order of the Board.

J. H. GORDON,
Secretary-treasurer.

Montreal, February 26th, 1924.

CITY of VERNON

Tenders for Debentures

Tenders will be received by the undersigned up to and including Monday, March 10th, for the purchase of $25,000 Electric Light, 15-year, 5½%. Also $6,000 "Kalamalka Lake Beach Loan By-law" 15-year, 5½% CITY OF VERNON. Debentures due 1st February, 1939, interest payable half-yearly on the 1st days of February and August, at any agency of the Bank of Montreal in Canada, or London, England. The highest, or any, tender not necessarily accepted.

J. G. EDWARDS,
City Clerk.

DOMINION GLASS COMPANY Limited

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that a dividend of one and three-quarters per cent. (1¾%) has been declared on the Common Stock of Dominion Glass Company Limited for the quarter ending the 31st day of March, 1924, payable Tuesday the 1st day of April, 1924, to Shareholders of record at the close of business Saturday the 15th day of March, 1924.

By order of the Board.

MERVYN OFFER,
Comptroller and Secretary.

Montreal, 21st February, 1924.

Dominion Glass Company Limited

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that a dividend of one and three-quarters per cent. (1¾%) has been declared on the PREFERRED STOCK of Dominion Glass Company Limited for the quarter ending the 31st day of March, 1924, payable Tuesday the 1st day of April, 1924, to Shareholders of record at the close of business Saturday the 15th day of March, 1924.

By order of the Board.

MERVYN OFFER,
Comptroller and Secretary.

Montreal, 21st February, 1924.

The Shawinigan Water and Power Co.

NOTICE IS HEREBY GIVEN that a dividend of one and three-quarters per cent. (1¾%) has been declared on the Common Stock of this Company for the quarter ending March 31st, payable April 10th, to shareholders of record March 26th, 1924.

By order of the Board.

JAMES WILSON,
Secretary.

Montreal, February 19, 1924.

CIVIL SERVICE STAFF REDUCED

EDMONTON.—Net reductions of the provincial civil service staff during the year 1923 totalled 128, there having been 207 retirements and only 79 appointments to the permanent staff, according to the report of the Civil Service Commissioner.

DOMINION TEXTILE COMPANY Limited

NOTICE OF DIVIDEND

A DIVIDEND of one and three-quarters per cent. (1¾%) on the Preferred Stock of DOMINION TEXTILE COMPANY, LIMITED, has been declared for the quarter ending 31st March, 1924, payable 15th April to shareholders of record March 31st.

By order of the Board.

JAS. H. WEBB,
Secretary-Treasurer.

Montreal, Feby. 8th, 1924.

The Dominion Bank

NOTICE IS HEREBY GIVEN that a Dividend of three per cent. upon the paid up Capital Stock of this Institution has been declared for the quarter ending 31st March, 1924, being at the rate of twelve per cent. per annum, and that the same will be payable at the Head Office of the Bank and its Branches on and after Tuesday, the 1st day of April, 1924, to shareholders of record of the 20th March, 1924.

By order of the Board.

C. A. BOGERT,
General Manager.

Toronto, 22nd February, 1924.

BELDING CORTICELLI LIMITED

DIVIDEND NUMBER 37

NOTICE IS HEREBY GIVEN that on the Preference Stock of the Company, the Directors have declared a Dividend of 1¾%, payable on the 15th of March to shareholders of record at the close of business the first day of March, 1924.

By order of the Board.

JOHN P. KENNEDY,
Secretary pro tem.

Dividend Notice

Canadian General Electric Co., Ltd.

Preference Stock Dividend No. 56

NOTICE IS HEREBY GIVEN that a Dividend of seven-eighths of one per cent. for the half quarter ending the 31st day of March, 1924, being at the rate of seven per cent. per annum, has been declared on the Preference Stock of the Company.

Common Stock Dividend No. 100

NOTICE IS ALSO GIVEN that a Dividend of three-quarters of one per cent. for the half quarter ending the 31st day of March, 1924, being at the rate of six per cent. per annum, has been declared on the Common Stock of the Company.

The above Dividends are payable on and after the first day of April, 1924, to Shareholders of record at the close of business on the fifteenth day of March, 1924.

By order of the Board.

W. H. NESBITT, Secretary.

Toronto, February 25th, 1924.

FINANCIAL STATEMENT OF

The Saskatchewan Creamery Co.

of Moose Jaw, Limited

as at December 31st, 1923

DIRECTORS:

DAVID KEARNS, Pres. Maple Creek Milling & Power Co., Ltd., Maple Creek, Sask.
W. C. McCULLOCH, Vice-Pres. Geo. McCulloch & Sons, Ltd., Souris, Man.
GEO. BARR, Pres. Geo. Barr Lumber Company, Limited, Shaunavon, Sask.
J. J. GALLOWAY, Galloway Cleary & Company, Regina, Sask.
W. W. SMITH, W. W. Smith Agencies, Swift Current, Sask.
L. J. BRAZZIEL, Pres., Brazziel Lumber Company, Gravelbourg, Sask.
H. F. STIRK, Stirk's, Limited, Moose Jaw, Sask.
W. R. BRODIE, Merchant, Empress, Alta.
H. D. STEPHEN, Druggist, Assiniboia, Sask.
R. S. HODSON, Pres., Hodson Hardware Company, Ltd., Maple Creek, Sask.
J. A. CAULDER, Pres. and General Manager, Moose Jaw, Sask.
C. S. SMITH, Vice Pres. and Managing Director, Moose Jaw, Sask.

BALANCE SHEET

ASSETS:

CURRENT:		
Cash on Hand, in Bank	$ 8,141.97	
Accounts Receivable	27,395.05	
Share Notes and Bills Receivable	102,264.61	
Produce, etc.	48,999.62	$186,801.25
REAL ESTATE, PROPERTIES AND PLANTS:		
12 Plants, Real Estate, Machinery and Equipment		792,826.02
GOODWILL		1.00
DEFERRED CHARGES		
Advertising, Insurance, etc.		2,761.90
		$982,390.17

LIABILITIES:

CURRENT:		
Outstanding Cheques and Unpresented Bond Coupons	$ 5,494.53	
Bills Payable	19,440.71	
Accounts Payable	43,014.63	
Holdback on Salaries and Wages	1,925.65	
Bank Loans	30,000.00	$ 99,875.52
Mortgages and Agreements payable on plants purchased. Interest and Principal payments all made		35,124.35
RESERVE for business profits taxes, water and contingencies		16,851.15
BONDED AND DEBENTURE DEBT:		
Seven per cent. First Mortgage Gold Bonds due July 1, 1929		200,000.00
CAPITAL STOCK:		
Pfd. (6% First Issue)	$100,000.00	
Pfd. (8% Second Issue)	400,000.00	
Common	100,000.00	600,000.00
SURPLUS		30,539.15
		$982,390.17

J. A. CAULDER,
Pres. and Gen. Manager.

C. S. SMITH, Vice-
President and Managing Director.

T. GEO. MARTIN,
Secretary-Treasurer.

Certified Correct as Shown by Books of Company

HODGE, THOMPSON & BAMFORD
Chartered Accountants.

Featuring Iron Ore as National Issue

THE FINANCIAL POST

The Canadian Newspaper for Business Men and Investors

Special Section 17-44 PUBLICATION OFFICE: TORONTO, FEBRUARY 29, 1924 Special Section 17-44

ONTARIO BOUNTY ACT PROVIDES ONE HALF CENT A UNIT

Ottawa Will be Asked to Contribute the Other Half Cent

OTHER FEATURES

Low Grade Centred in Ontario Can be Marketed Anywhere —High Grade Only to Ontario

A printed copy of the Iron Ore Bill which Hon. Chas. McCrea introduced in the Ontario legislature shows that the Ontario measure, if passed as drafted, will provide for but one half the bounty as recommended by the Ontario iron ore committee. The plan is that the Federal government shall put up the other half. There will be some disappointment over this, as the hope of many was that the province would make the bounty read one per cent. per unit, and that Ottawa would do the same. Instead, the Ontario act reads one-half of one cent.

The measure provides that the bounty shall be paid on low-grade, treated in Ontario, and marketed anywhere, or on high-grade, if sold to an Ontario furnace.

The bill reads:

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. This Act may be cited as "The Iron Ore Bounty Act, 1924."

2. In this Act,—

(a) "Unit" shall mean one per cent.

(b) "Ton" shall mean 2,240 pounds avoirdupois weight.

3. The Treasurer of the Province of Ontario may under the authority of such regulations as may be made from time to time by the Lieutenant-Governor in Council, and out of moneys appropriated by the Legislature for the purpose, pay a bounty to the miners or producers of iron ore which shall be raised or mined in the Province of Ontario for a period of ten years from the date of the coming into force of this Act, at the rate of one-half of one cent for every unit of metallic iron contained in every ton of such ore, in the manner following, that is to say:—

(a) on low grade iron ore when the same has been concentrated, treated or beneficiated in Ontario by mechanical means and delivered at any iron blast furnace or other works for the production of pig iron or steel and for use in the same.

(b) on iron ore in the natural or unbenefited condition when delivered at any blast furnace or other steel works for the production of pig iron or steel in the Province of Ontario, and for use in the same.

4. In ascertaining the contents of iron ore for the purpose of the bounty, the assay or analysis of the same shall be made when the ore has been dried at 212 degrees Fahrenheit.

5. The bounty herein provided shall cease and determine with the payment of any sum or sums which shall have been earned during the said period of ten years.

6. This Act shall come into force on a day to be named by the Lieutenant-Governor in Council by this proclamation.

WHY BENEFICIATE ONTARIO'S ORE?

Harmful Ingredients Removed and Proportion of Iron is Thus Increased

Ontario's iron ore will have to be beneficiated.

Many wonder what this means.

A very good explanation of the term is contained in the report of the Ontario iron ore committee. It is essentially intended to cover all methods whereby iron ore in any way unsuitable for direct use in the blast furnace may be made available to present-day practice. This definition is intended to cover ordinary concentration whereby waste rock is eliminated and the relative proportion of iron increased, as well as roasting, sintering, and other processes, where undesirable constituencies are wholly or partially eliminated, or where the physical characteristics have been changed to meet furnace requirements.

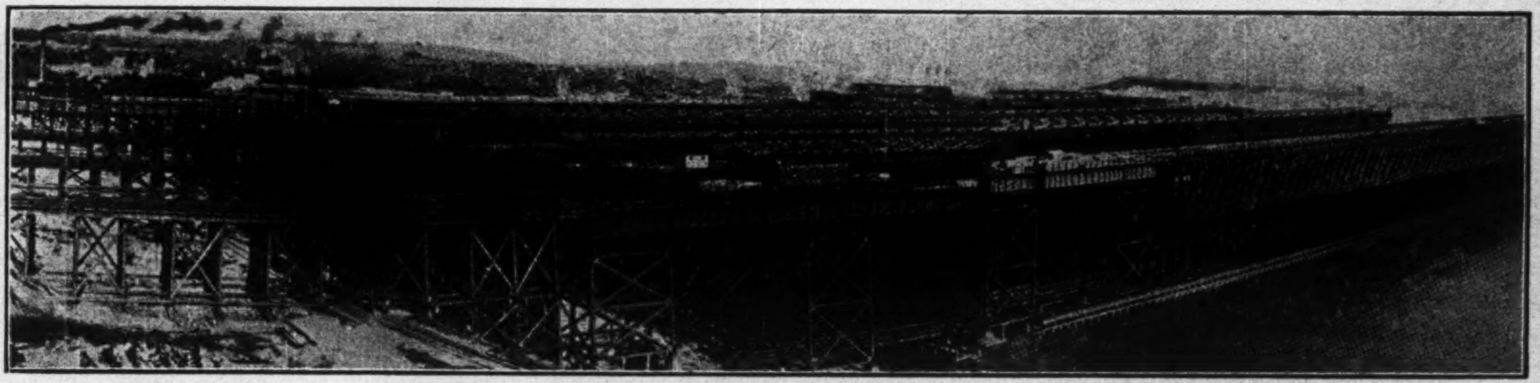
The world's insistent and constantly increasing demand for iron and steel products is rapidly exhausting the merchantable iron ore bodies situated near the great centre for distribution of iron and steel products. The enormous increase in cost is turning the attention of furnace men to hitherto neglected and comparatively low-grade deposits. As to whether or not any particular iron ore deposits can be beneficiated at a cost which will permit its economic utilization is engaging the best efforts of many metallurgists.

NICKEL-COPPER DEPOSITS

Fort Francis Believes They Have Large Bodies in That District

Fort Francis looks forward to the day when it will be a great producer of nickel-copper. They believe that like the iron ore situation, it only requires proper exploration at depth by diamond drill to prove up large ore bodies. The formation they say is identical with that of Sudbury. There are outcrops of perrhotite lead, 200 feet wide, which show high nickel and copper values.

Industry Which Follows in Wake of Iron Ore Development



The above, in a small way, gives some idea of the magnitude of the enterprise of producing iron ore. Shown are the ore docks at Two Harbors, Minn. It is here that lake boats gather their down-the-lakes cargoes. Can Ontario duplicate this enterprise is the question asked.

Noted Geologist Reviews Iron Ore Ranges of N. West Ontario

Greater Number and Variety of Deposits Than in Any Other Province—Many Large Enough if Suitable Beneficiating Process is Discovered.

By W. H. COLLINS,
Director, Geological Survey, Department of Mines, Ottawa.

Ontario has a greater number and probably a greater variety of iron ore deposits than any other province of Canada, but most of these deposits are either too small to be mined or too low grade to yield merchantable ore without artificial concentration. Consequently, Ontario has practically no iron mining industry. The average annual production since 1900 has been around 200,000 tons, and for 1922 was only 4,614 tons. There are, however, low-grade deposits of different geological ages and mineralogical characters, amply large enough to be operated if suitable processes can be devised to beneficiate them, and there are some iron-bearing formations in which bodies of merchantable natural ore may yet be found. A few of these of particular importance from the present outlook of the iron mining industry are briefly described in this article. For an account of iron ore deposits that cannot be described or mentioned in so short an article the reader is referred to the reports of the Ontario Bureau of Mines, and to "Iron Ore Occurrences, in Canada," by Lindeman and Bolton, published by the Mines Branch, Department of Mines, Ottawa.

Carbonate Ores Throughout North

The only important bodies of carbonate iron ore known in Ontario occur in an ancient Pre-Cambrian group of volcanic formations, called the Keewatin, that is widely distributed in the northern part of the province. Most of these carbonate bodies are accompanied by a banded material composed of alternating layers, about half an inch thick, of granular quartz and of some iron mineral—siderite, magnetite, hematite, or a mixture of these. Originally, the carbonate and the banded material, which are together known as an iron formation.

(Continued on page 29)

Sintered Ore Commands Higher Market Price

In the iron and steel industry problems that were outside reasonable consideration a few years ago are now quite possible of solution. In this regard the Ontario iron ore committee points out that the greatest progress has been made in sintering, a process having become a function of roasting and agglomerating. The sulphur can be readily eliminated, and the product obtained that is well fitted for a blast furnace. Special importance is attached to the fact that a comparatively small amount of fuel is required in the sintering process. It is being claimed that in using sintered ore many advantages are gained. One of these is a more rapid reduction in the blast furnace. This increases production to a considerable extent. Fuel losses are thus very low. Many other highly technical points are also advanced in favor of this ore. Summing up the report of the committee, we see that while high-grade beneficiated ores are more difficult and costly to produce but are more easily and cheaply treated in the blast furnace.

Just how far the decreasing cost of treating these ores in the furnaces balances with the cost of producing them is unknown, and will not likely be known until there has been more experience in such operation.

SPECULATIVE FUNDS ARE NEEDED TO AID IRON ORE MINING

Duluth's Many Millionaires Evidence Fact That it Returns Good Profits

To develop Ontario's iron ore deposits to their fullest extent it will be necessary to advance considerable speculative funds. Speculative funds must be the initial work. Of course, this is not always the case, as evidenced by the development in the Michipocoten area, where prospects were developed by Algoma Steel Corporation. However, it seems that any prospecting and development of iron ore bodies at the head of the lakes will have to be undertaken by speculative funds. When the presence of the ore bodies, which it is believed exist, are fully shown there will be no hesitancy on the part of large capital, most likely from across the line, where great profits have been made in the iron ore industry, to jump in and take hold of the profits.

Capital Opportunities

The question naturally arises then: What are the opportunities for the returns which await the entry of speculative funds? There are no statistics in Canada to show this.

However, Canadians who are more or less interested in the industry, and who pay frequent visits to the Lake Superior sections of the United States express the opinion that returns from the development of iron ore will bring a reward equal, if not greater, than a speculation of similar sums in gold or silver mining.

They point to the city of Duluth, and make the claims that that city has more millionaires than any other city of the world in proportion to its size, and they say these are only the left-overs, a large number of those who made millions from the iron ranges of Minnesota and Wisconsin having gone to live in other sections of the country. Some doubt if more than half the millionaires live there. The life of the mining camp hardly appeals to the millionaires. This is evidenced by the fact that Cobalt turned out between 28 and 30 millionaires, and not one of them live there while some of them have never seen the town.

Production of Own Iron Ore a Matter of Importance to Whole of Dominion

Will Increase C. N. R. Earnings and Lead to Many New Settlements and Much New Business—Will Keep $10,000,000 Funds at Home and Help Canada's Trade Balance.

The development of the iron ore industry of Northern Ontario or British Columbia is not for a moment to be considered as a purely provincial matter, rather is it of national importance.

From a national viewpoint, the one great benefit that will immediately accrue from the development of iron ore deposits will be a heavy tonnage for the National Railways. Canada is crying out to-day against the burden of taxation, and one of the heavy loads is due to the deficit of the Canadian National Railways. The handling of iron ore will develop a considerable revenue. This revenue will come from that section of the country which is to-day responsible for quite a portion of the railway loss. The development of the iron ore deposit will result in large settlements springing up. This has been the case of all mining camps. The towns of Biwibik, Eveleth, Virginia, Chisholm, and Coleraine, along the Mesabi range, are all evidence of this.

Settlements will provide greatly increased revenue for the railways, besides they will ultimately result in the taking up and clearing of large agricultural sections, and this will provide considerable tonnage in pulpwood.

In another section of this issue will be found data dealing with Canada's import of steel products. There is a tremendous balance against the Dominion in this regard. The production of a supply of domestic ore would undoubtedly help in the rapid springing up of additional steel plants, which would also add materially to the tonnage of the Canadian railways.

The steel industry has played a very important part in the rather weak conditions in which the Canadian dollar has been for some time past. This is a factor not to be ignored.

A direct and immediate benefit from the production of iron ore in the Dominion would be that the $10,000,000 which now goes to the United States in the purchase of iron ore would stay in the Dominion. It would reduce Canada's unfavorable trade balance with the United States.

"LOW-GRADE," A MISNOMER

"Do not waste your time, as I have wasted mine for 36 years. If the matter does not come before parliament this year, it is only one year lost. Make the people of Canada know what we have got. Don't talk all the time about low-grade iron ore; that is a misnomer; we have all the iron ore of a high grade we want to keep us going."—J. T. Horne, in addressing Iron Ore Association at Port Arthur.

BOUNTY METHOD IN FAVOR AT OTTAWA

Ontario Announcement re Iron Ore Received With Considerable Interest

OTTAWA.—The announcement that the Ontario government will grant a bonus on iron ore produced within the province is received with much interest in Dominion government mining circles. The bonus method of encouraging the mining industry seems to have come into favor both here and in Toronto; for during the last session of parliament bonuses were granted for the production of copper and brass rods produced in Canada. It is too early, however, to determine what effect the bounties have had.

During the last 10 years, up to March, 1923, Canada had imported from the United States iron ore to the extent of 10,231,457 tons. During the last fiscal year the amount brought in from across the line was 701,993 tons. The imports, of course, were heaviest when the country was turning out war munitions. It is evident that if this ore, averaging 1,000,000 tons a year, had been produced in Canada, it would have made a great deal more freight for Canadian transportation companies.

Canada Could Produce Her Own Iron Ore if Necessity Demanded

Dominion To-day Following Line of Least Resistance—and Sending $10,000,000 Yearly to U.S.

"It is with some satisfaction we assert that, though to-day Ontario's iron ore requirements are supplied wholly from the United States, we could, if stern necessity demanded, produce from our own deposits sufficient ore to maintain our own furnaces in blast."

The above statement, taken from the report of the Ontario Iron Ore Committee, indirectly explains why Canada is not producing a pound of iron ore.

The Dominion is following the line of least resistance; making no effort to develop its own vast resources; satisfied to let others do it.

Ten million dollars yearly goes out of the country into the United States for iron ore. Canada seems satisfied to let that go on, unmindful of the wonderful development which would take place if that huge sum of money were spent at home. Because of lack of vision, Canadians cannot see the large and numerous settlements which would spring up, and the many other benefits which would accrue from the development of these resources. Enterprise and industry, which to-day are almost stifled, would boom if Canada would only get busy and develop her own iron ore instead of sending huge sums of money into the coffers of large companies in the United States.

NEW GOLD FIND

Last fall a new gold discovery was reported near the eastern boundary of the Nipigon Forest Reserve, south of Tashota. The gold is to be found plentifully on both sides of the boundary.

Bridge Two Important Gaps in One Jump is Premier's Proposal

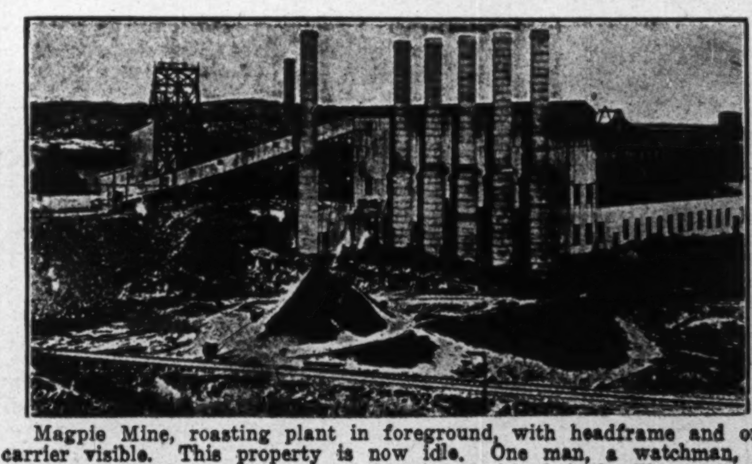
"We must bridge the gap," said Premier G. Howard Ferguson of Ontario recently in speaking of the vast unproductive area across the north shore of Lake Superior, which to-day, stands as a barrier between the East and the West.

"We must bridge the gap," said Premier Ferguson on another occasion, in speaking of the difference in cost and commercial value of Ontario's iron ore.

The one operation is expected to go a long way in bridging both gaps, i.e., the iron ore bounty.

It will focus attention on that section of the province, that, to-day, divides the East and West. It will start the production of iron ore in the province, thus creating new wealth. Of the development of the iron ore industry, the premier has said:

"There can be no doubt as to the great importance of this project to the future of the Dominion. It will arouse interest in the production of native iron ores, which should be the basis of the extensive iron and steel industries of the country. We cannot afford to have that industry looking for its raw material to a foreign country, which is also a competitior. We cannot realize the full measure of our commercial independence so long as we are willing to found our industries on foreign raw materials. So far as the Province of Ontario is concerned, its desire is to create an industry which will provide opportunities for labor and will retain to the country money which would otherwise be sent abroad. Furthermore, the province desires to establish the iron ore industry on an enduring Canadian basis, and to that end to utilize to the full the mineral resources with which this province has been so bountifully endowed."



Magpie Mine, roasting plant in foreground, with headframe and ore carrier visible. This property is now idle. One man, a watchman, is employed. A couple of years ago 400 miners with their families made up the little settlement around the mine.

EXPLORATION WILL OPEN UP BODIES OF HIGH GRADE

Chances of Finding Rich Iron Deposit by no Means Eliminated

MUCH LIKE STATES

Few Outcrops on the Mesabi Showed High Iron Content —Many Are Optimistic

By D. E. CUSHING,
Mining Editor, Financial Post.

"Ontario has no high-grade iron ore deposits."

One wonders who is the authority for this oft-repeated statement.

The argument advanced generally is that no high-grade deposits have been found, while numerous low-grade bodies have been opened up.

The fact that no high-grade deposits have been found is no evidence at all that there are not high-grade deposits somewhere in Northern Ontario.

That the absence of surface outcrops is no evidence, is emphasized by the fact that on the famous Mesabi Range of the United States, stretching as it does like giant ribbon for 110 miles, there were very, very, few surface out-crops, and the one outcrop which led to the initial discovery of the range was so small that it was hidden under a fallen tree.

A very interesting point is made by the Ontario Iron Ore Committee in its report dealing with this phase of the situation. It states:

"It will be seen that with the closing of the Helen Mine Hematite deposit, now worked out, there have been to date no discoveries of iron ore in this province that in a natural state can be classified as commercial ore bodies. It must not be assumed, though, that our chances of finding such ore are by any means eliminated.

"In fact, when we consider that even the larger and more important iron ranges in the United States have few surface out-crops to guide the prospector, and that their present known dimensions have been ascertained only after many years' continuous development and the expenditure of huge sums of money, and then realize the comparatively small amount of work done in Ontario, it is apparent that we have but tapped the margin of our property iron ore resources."

The fact of the matter seems to be that the main reason there are no high-grade iron ore deposits in Ontario is because no organized effort has been made to find them.

Hard to Make Stick

It would, however, be a hard job to convince many men who have made some study of the iron ore deposits of the north that Ontario has not high-grade ore. The high-grade deposits of the United States are found in that small two or three per cent. of the Pre-Cambrian area which is located in the Lake Superior region. Canada has around about 98 per cent. of the Pre-Cambrian area. The question has been quite properly asked if nature brought the iron ore deposit of the United States to our very door and then stopped at a point where the boundary commission would draw that imaginary line which separates Canada from the United States, then on the northern side of the line to be deposited only low-grade and practically useless ore.

Same as Oil

It has been pointed out that to say that we have no high-grade iron ore would be just as convincing to a lot of people as it would be to a lot of the oil drillers in Alberta to tell them that Canada has no oil deposits. These men point out that oil was found in Mexico, Texas, Oklahoma, Arkansas, Montana; they ask if nature deposited all the oil in the United States, bringing it right up to the imaginary boundary line between Alberta and Montana and stopped there.

It is the firm opinion of many people that the judicious expenditure of a not too large sum of money in diamond drilling would soon prove that Ontario has large deposits of high-grade iron ore.

Second Playhouse of Canada in the North

No review of the resources of Northwestern Ontario would be complete without some reference to its scenery and tourist possibilities. Many who have gone over it refer to the section as the second playhouse of Canada, putting it just a little behind the Rockies for the grandeur of its outstanding and marvelous scenery.

Many Canadians, and these will be made up of a goodly number of Ontario residents, trip to the Western states to see the Grand Canyon. They perhaps never hear of the Agawa Canyon on the Algoma Central. It has been referred to by Col. J. A. Currie, M.P.P., as the most beautiful spot, probably, in the whole world. Montreal River Falls have a greater fall than Niagara. Such is the whole country. Ontario has it, doesn't know it, so can't tell the world about it. The result is that other spots less worthy bask in all the glory.

The British Canadian Mines, Limited

Owners and Operators of the Foley Mine

Latest Reports and Early Showings are Notably Promising

FOR the past year the British Canadian Mines, Limited, has been actively engaged at work on the "Foley Mine" in an endeavour to bring the property into production. A large amount of money has been spent in overhauling the power plant, compressor, and erecting new head frame, hoist house, bunk houses, assay laboratory and equipment (there are fifteen buildings on the property), also providing drills, pumps and necessary machinery for the carrying on of active mining. Complete electric lighting and telephone equipment has been installed, and about 40 men are at present employed.

The work of opening up the shafts and underground workings and the general survey of the veins on the property has just been completed, and the showings have been most favorable.

The programme decided upon by the management for present development, is to provide large ore reserves, by drifting on two of the veins. Work has already begun by drifting south on the Bonanza Vein at the 400 foot level, and on the Jumbo Vein at the 150 foot level for a distance of 250 feet, at which point these two veins join, and continue at length.

The Jumbo vein was cut by cross-cutting from the 150 foot level of the North shaft, and showed the vein to be sixty-six inches in width. The Bonanza Vein at the 400 foot level shows twenty-seven inches in width. It is expected this work will take approximately two months to complete, after which the management will be in a position to determine the mill requirements and decide what is best for future development. At the juncture where the Bonanza and the Jumbo Veins meet, it is expected to show up a large tonnage of high grade ore.

It is expected the Foley will be numbered among the large producing gold mines of Ontario. Even a conservative estimate substantiates this judgment. More than that enough work has been done in the mine in past years, to demonstrate how rich the promise actually is.

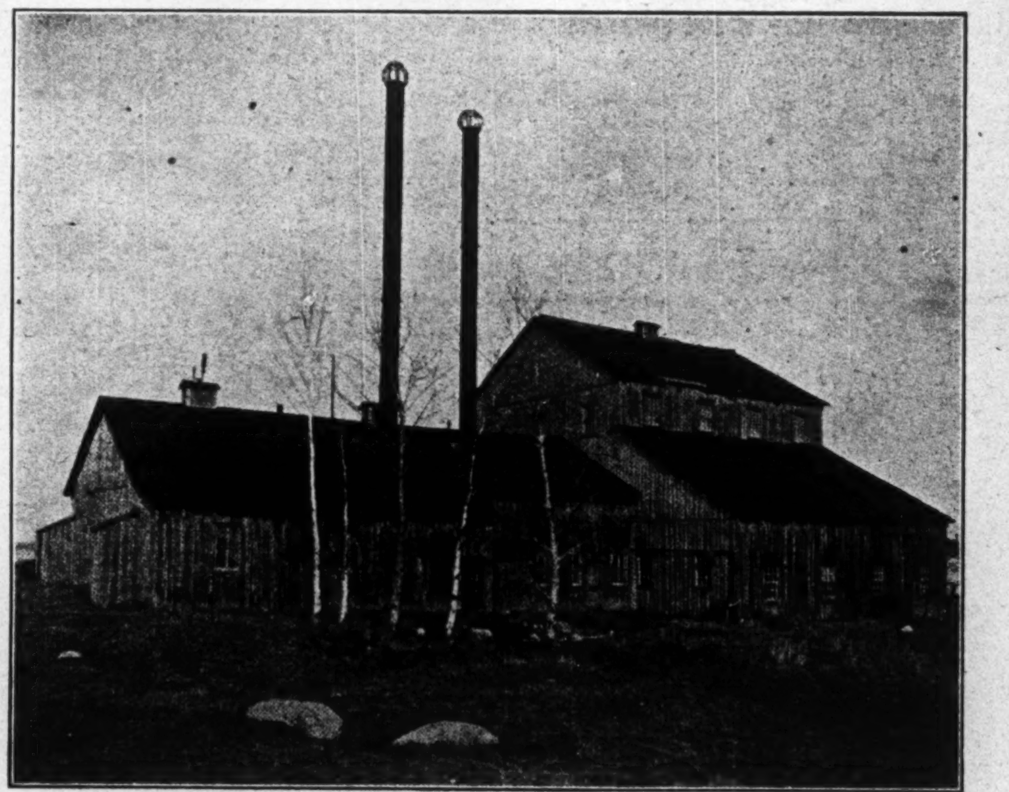
The Foley is not a new mine. It was discovered some twenty years ago, but owing to the early death of the discoverer, and the unsatisfactory operation of the syndicate that took up the work of development, action to dispossess had to be taken in the courts and the consequent litigation prevented operation for sixteen years. The outright purchase by The British Canadian Mines, Limited, has resulted in renewed activity.

The early syndicate took out some $100,000 in gold. Thirteen veins have already been worked and all show surprisingly rich yields, and all are of the "true fissure" formation; while on at least seven of these veins valuable ore shoots have been discovered.

As an evidence of the richness of the property, take this instance: at the fifty-foot level of the south shaft, drifts were run north and south for 130 feet, they showed the vein at this level to be from 12 inches to 18 inches in width, and samples taken along this vein showed an average assay value of $157.52. Taking the value and widths at the surface and first and second level it is possible to determine that the values are continuous throughout the known length (1,200 feet) of the vein.

Section of Profitable Geologic Formations

The Lower Seine River section is one of the most important mining sections in the province. It is an area of eruptive granite formation, in which "true fissure" veins are most frequently found. This formation is notable, not only for the fact that the veins break clean from the enclosing rock, but in many cases have a continuity not usually found in other types. Dr. A. P. Coleman of the University of Toronto Geologic Department, is authority for this statement, and also for the further statement that the Seine River and Shoal Lake sections, where the Foley Mine is located, are the best known examples of this formation, with scores and perhaps hundreds of well defined veins running in various directions. All of which gives evidence of the very rich potential assets of The British Canadian Mines, Limited, properties.



The mill containing the stamps, compressors and machinery. This and other buildings stand as a substantial asset.

Improved Conditions Facilitate Work

The working conditions, since the mine was first opened, have changed remarkably, and now the mine is most fortunately placed for shipping and general maintenance. The Canadian National Railways operates within seven miles of the mine, and for six months of the year direct water transportation from Fort Frances, Ontario, through Rainy Lake, delivers supplies direct to the Company's wharf on Shoal Lake.

Conditions are further improved by the hydro-electric plant that is to be installed within four (4) miles of the mine head, and will provide power for operating the mill and hoists at a very moderate cost. At present the mill is operating by steam power, developed by coal and wood fuel, the wood derived from the adjoining timber limit, that also provides timbering for the shafts.

Government and Engineers' Reports Show Rich Prospect

The government reports dealing with the Foley Mine are more than encouraging. Speaking in general terms, the reports outline the richness of the field in which the British Canadian Mines, Limited, own and control 1,027 acres.

In the report of one of the investigators, bearing directly on the Foley Mine, states that it "is the only inactive gold mine in Canada with proven ore reserves far in excess of the requirements of the mill. In the Foley Mine the company has a property that will produce gold, profitably and continuously from 15 to 20 years according to the capacity of the mill. It has 3,200 feet of underground work and has shown up proven ore of average value from $12 to $15 a ton, and about 400,000 tons of partly proven ore of relatively the same value."

In the preliminary report of an Eminent Engineer, some interesting information as to the actual results shown, is given. "The official records of the mill runs," it says, "give an average extraction by amalgamation of $15.82 per ton. The result of three test runs are given in detail: 2,500 tons from 'Bonanza Vein' gave a bullion value of $25,294.21 or $10.52 per ton; 150 tons from 'No. 5' shaft gave a bullion value of 2,633.37 or $17.45 per ton; 20 tons from 'Lucky Joe' shaft gave a bullion value of $396.00 or $19.80 per ton."

It is to be remembered that all these tests are by the amalgamation process, recovering approximately 60 per cent. of the value. With the use of the cyanide process, for which new mills will shortly be installed, 97 per cent. will be recovered, bringing the average on these actual assay figures quoted to an average of $25.85. Surely a more than satisfactory showing.

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The Registrar and Transfer Agents are: The Chartered Trust & Executor Co., Toronto.

British Canadian Securities Limited

Fiscal Agents

8 Bloor St. East, Toronto

While the accuracy of this information is not guaranteed, it is taken from official and other sources believed by us to be thoroughly reliable.

HELEN MINE SHOULD BE FIRST TO GET OPERATIONS GOING

Has Great Reserve of Ore That Would Have to be Sintered

OTHERS HAVE CHANCE

A Review of the Principal Iron Mining Operations of Ontario—Go Back Years

The principal iron mines in Ontario are, Atikokan, Helen, Magpie, Moose Mountain, Blairton, Belmont, Bessemer, Childs, and Coe Hill.

Of these the granting of an iron bounty, it is believed, will first show results in the opening of the Helen mine, property of the Algoma Steel Corp., and located in the Michipocoten area. This mine is 182 miles from The Soo, being connected with Algoma Central by a short spur and being 12 miles from Michipocoten Harbor. It has an immense tonnage of siderite ore, as the following conservative estimate shows:

	Under 2% sulphur	Over 2% sulphur
Over Tunnel	10,000,000	968,000
Below Tunnel ..	36,100,000	18,250,000
Lean Ore..	1,100,000	
Totals	48,222,000	19,218,000
		67,440,000

Most estimates of the reserves of this mine carry the total well over a hundred million. This siderite is not far from the old hematite deposit. The first exploration was started in 1913. A drill hole sunk to a depth of 1081-5 feet deep suggested a block of mixed siderite 600 feet long, 200 feet wide, and 150 feet deep, or about 2,000,000 tons. Later, another work was done; another hole from the 8th level, cut down to a vertical depth of 234 ft.

Above the tunnel, 324 feet from surface, it is estimated that there are 13,500,000 tons of ore grade, Fe. raw, 35.61; Fe. roasted, 52.03. Reducing 25 per cent. for rock and mining loss would leave 10,125,000 tons. There are considerable stretches of ore run over 2 per cent. sulphur, or an estimated tonnage of 968,000.

Below the tunnel there is estimated 36,100,000 tons, Fe. raw, 35.82; roasted, 52.33; over 2 per cent. sulphur, 18,250,000 tons, and iron or., 2,173,000 tons.

Considerable of these ores can be mixed with others.

There is another independent ore body of 1,022,000 tons, 38.73 Fe. raw, and 55.60 roasted. C. K. Leith, a noted United States ore authority, said that the proposition seems soundly based. The element of hazard is largely climinated by experience on the Magpie. It is specifically favored by the desirable grade of its product, the uniformity of the grade, favorable mining conditions, the absence of royalty and taxes, freedom from Fee owners, restrictions and lower boat and rail freight, than the bulk of Lake Superior ore.

The old Helen and Magpie mines had the largest production records of any iron deposits in Ontario. The former, a hematite deposit, is worked out; the latter, a magnetite deposit, is flooded and may never be reopened.

Helen started shipping in 1900, and to the end of 1915 sent out 2,263,522 gross tons. Besides this, 37,572 tons of iron pyrites were shipped. The ore body was almost completely worked over.

At the Magpie, all ore was roasted before shipping, so that no record of ore hoisted was kept. Shipments of roasted ore were as follows:

1913	19,935 tons
1914	98,070 tons
1915	118,666 tons
Total	236,671 tons

The Atikokan is in Rainy River district, and was discovered in 1882 by Jim Shogonosh, an Indian trapper. With the exception of a trench cut across the ore-bearing ridge in 1887 no development work was done until 1900, when a tunnel 5 feet by 6 feet was driven through the hill, a distance of 284 feet. In 1901 six diamond drill holes were put down. The tunnel was enlarged in the years 1907 and 1911. In 1911 and 1912 four additional tunnels were driven into the hill. Three exploratory shafts were started in 1912. One was discontinued at a depth of 47 feet, but Nos. 2 and 3 were sunk 150 and 126 feet respectively, and from the bottom of each of the latter a drift was driven across the ore-bearing zone. Since the completion of this work in 1913 all operations at the mine have been suspended.

Mining operations to supply the company's blast furnace at Port Arthur commenced in 1907 when a small output was shipped. Since then the mine has been operating and shipping ore during the years 1909, 1910, and 1911.

The most conspicuous feature of the Atikokan property is a steep narrow hill with a length of 3,800 feet, a maximum width of 400 feet, and a maximum elevation above the swamp which surrounds it on all sides, of 100 feet. This hill is composed chiefly of dark basic rocks with which are interbedded irregularly-shaped, roughly lenticular, overlapping bodies of magnetite, some of which are impregnated with sulphides

A series of tunnels were driven into the ore-bearing hill, and these cut numerous lenses of ore varying in width, iron content and sulphur. The ore proved a hard, dense magnetite, difficult to mine, and of a refractory nature. Total ore shipped was 86,433 tons. The objectionable sulphur content makes it necessary to roast the ore to prepare it for a furnace.

Moose Mountain is at Sellwood, the various deposits being grouped around the town. It was in 1901 that their exploration was started, and the first shipment went out in 1908. By magnetic cobbing the ore was made more acceptable to the market, which objected to the low iron content, while a concentrating briquetting plant was erected to take care of fines, which were removed by screening. The operation was never placed on a commercial basis.

The Blairton is in Peterborough Co., and was opened in 1820, and operated intermittently until 1875, and considerable tonnages shipped. In 1908 and 1910 considerable drilling was done, but no development undertaken by the present owners.

Belmont, owned by Canadian Furnace Co., Port Colborne, is 8 miles from Marmora, Ont. This property was operated many years ago. In 1911, after years of idleness, it re opened, and considerable development undertaken.

Bessemer mines are owned by Canada Iron Mines, and are located in Hastings Co. They were first exploited in 1902, and ore was shipped up to 1907. Then the property was leased and operated to 1913, and since then lay closed. The ore occurs in isolated lenses, and the best quality averages about 54 per cent., but considerable cobbing has to be done to keep it up to that standard.

Child's mine is in Mayo Tp., Hastings Co., and was systematically explored in 1913, but has not operated since. A shipment of 9,649 tons in 1913 showed 38.70 per cent. iron.

Coe Hill, also in Hastings, was opened in the early eighties, and shipped ore 1884 to 1887. High sulphur content was against it. Since then considerable work has been done in it from time to time.

Buildings at Atikokan Mine, Rainy River district. This range has great deposits, high in sulphur. The latter feature is the reason why a tremendous development is not going on there to-day.

Sintering Iron Ore Will Give Ontario Much Desired Product

Evidence of Feasibility of Treatment Will Probably be Available Within Year, Says Iron Ore Committee Report

It has been quite common in the past to hear well-intentioned folk remark that Canada has no iron ore deposits. By this they mean commercial deposits. Incidentally, there are suspicions as to where such propaganda had its start.

Canada has tremendous iron ore deposits. A review of the more important of these deposits located in the province of Ontario will be found elsewhere in this issue.

Others have put forward the contention that because of harmful ingredients contained in the ore our deposits are of no commercial value. Invariably these people pointed to the Atikokan Range, west of Port Arthur, which has a heavy sulphur content.

On the other hand, it has been generally admitted that our ores, insofar as known, require beneficiation. The problem seems to have been that everyone was worrying over the problem of finding a proper and economical process. In the meantime nobody has been trying very hard to find one.

The iron ore committee of the province of Ontario, however, is highly optimistic. From their studies and investigations they reached two very important conclusions in regard to the future of the industry in the province. The first is in regard to a proper method of treating the known ore deposits. They state:

"The applicability of magnetic concentration methods for low-grade magnetites and subsequent sintering is an art that will show wonderful progress during the next few years. Great progress is already in evidence."

Sintering has already been carried out and has proved a success on the ores of Ontario, notably at the Magpie Mine of the Algoma Steel Corporation. This mine, by the way, is now worked out. The iron ore committee states positively that a high-class, much-desired product can be produced by this process, and the positive evidence of the feasibility of the treatment will PROBABLY BE AVAILABLE WITHIN THE YEAR.

For the time being, such treatment will add considerably to the cost of producing the ore. It is for this reason that the committee have recommended that a bounty be paid until such time as the industry can get on its feet.

During that period, their main hope is that bodies of ore will be found of sufficient grade and purity as not to require magnetic concentration or sintering.

The committee in its report leaves no room for doubt as to just how they view the possibility of developing the iron ore industry in Northern Ontario. They state:

"We believe, that under certain conditions set out under recommendation:

(1) "That magnetic iron ore deposits running 50 per cent. in iron and upwards, though high in sulphur, can be commercially sintered and otherwise treated to produce a suitable product for the blast furnace.

(2) "Some deposits of sanded and other low grade magnetites, favorably situated with respect to markets, do lend themselves to commercial exploitation.

(3) "Some siderite ore can be commercially sintered to produce a first class product."

They then express their opinion as to the development of a successful process for the handling of these ores.

Iron Ore Mining Will Require Cheaper Fuels

A development in the treatment of iron ore that would seem to promise well for the industry in Northern Ontario, once it is well started, is the fact that it is possible to carry out the preliminary treatment by the use of cheap fuels, perhaps the low-grade lignites of Southern Saskatchewan and Manitoba, or peat made from the bogs, of which there are several at the head of the lakes. This process reduces the ore to a sponge and the sponge can be economically smelted by electricity. The north abounds in electric energy that can be had at from $18 to $25 per h.p.

The Value of Publicity To a Country

(Port Arthur News-Chronicle.

Representatives of THE FINANCIAL POST, Toronto, are in the cities gathering information that will be included in a forth-coming special number of the paper. Among the papers that are rendering valuable service to Canada are those devoted to financial and industrial interests. At regular intervals these papers issue special editions devoted to the cause of some special subject, or group of subjects. Compiled from authoritative sources these editions finding circulation within and without the country are the means of creating and holding interest of many in one or more subjects in which special progress is being made.

For several years a great deal of attention has been devoted by the financial papers to the pulp and paper industry. Pages relating the story of the development of the industry in Canada have been produced. Columns of statistics have been compiled and presented in paragraph or tabulated form, making easy the study of the matter by those interested. The story of paper constitutes one of the trade marvels of the present century. It is only a few years ago that paper making was one of the least of Canada's industries. To-day it is among the greatest wealth producing industries the country possesses.

Again, in mining, much of the success which has attended the industry can be traced to the publicity it has received alike from the daily and weekly papers and the financial journals. Had the story of Cobalt not been liberally circulated, mining in that field would not have reached the stupendous proportions it has. Porcupine would be known to but few. Lorraine would be a name scarcely heard. It is because of the publicity given to mining by the papers that success has attended it. Publicity opened the pocketbooks of rich and poor. Poor have become rich and, possibly some are not as rich as they were, but these latter instances are fewer than those who have gained greatly by investments made in properties receiving generous publicity at the hands of papers.

For years we have looked with hope upon the possibility of seeing the iron ore deposits of Thunder Bay made into a factor in the production of iron and steel in this province. Left to themselves and given no notice they will remain reserves for the great iron and steel concerns to be mined when other beds have been worked out. We want to see an opportunity given our young people to engage in mining and treatment of native ores. We want to see Canada save her $100,000,000 and more annually by developing her own iron and steel business. This hope can be realized. It can be realized the quicker if the help of such papers as THE FINANCIAL POST is enlisted.

WILDCATTERS NOT TO SHARE BOUNTY

Watered Stock Concerns to Get Close Scrutiny in British Columbia

Hon. Wm. Sloan, minister of mines of British Columbia, when announcing the intention of that province to spend $2,000,000 to assist the development of the iron ore industry of that province, sounded a timely note of warning when he said:

"I am determined that the popular demand shall not be used by promoters for exploitation of the industry, by means of watered stock or in any other respect. As far as the government is concerned the possibilities of this industry are being weighed only from the standpoint of business, and no particular proposal will be given special treatment that cannot stand close appraisal from that point of view. The support and encouragement we are prepared to offer are being granted because we are convinced that it will pay the province many times over, what the Bounty Act before the legislature contemplates, to have a bona fide working and producing iron and steel plant established in the province."

MANY AND VARIED BOUNTIES PAID TO GET STEEL PLANTS

Were First Offered to Aid Iron Ore But They Failed to Get Result

TOTAL 17 MILLIONS

Amount Paid to Steel Industry Varied at Times—All Aid Withdrawn in 1912

It is to be hoped that the present effort to secure a bounty to assist in developing Canada's iron industry will be found a success.

It is also to be hoped that the bounty, once granted, will also achieve its object.

Canada has tried long and tried hard to develop iron and steel industries. Her efforts in regard to steel were crowned with the greatest success, but not so in the iron industry Federal and provincial aid has been extended from time to time in an effort to have Canada's iron ore deposit brought to production. These have been met with success for a time, but ultimately failed, as evidenced by the fact that Canada is not producing a pound of iron ore to-day.

The first bounty was offered by the Dominion government in 1884. This consisted of payment of $1.50 a ton for pig iron produced by Canadian furnaces from domestic ore.

In 1895 a similar bounty was offered for the production of puddled bars, steel billets and ingots.

Results from this were disappointing and in 1898 the bounty of $3 per ton was made payable on pig iron. puddled bars, steel billets and ingots, and also a bounty of $2 per ton on pig iron produced from foreign ores. This aid stimulated industry and progress was rapid. In 1904 the bounty was made applicable to the production of rolled round wire rods, and certain other manufactures of steel, and in 1909 to pig iron and steel, produced by electric process. From time to time the amount of the bounty was raised, and in 1912, after having paid off $17,296,434 in establishing the industry, was withdrawn.

Iron Industry Provides Heavy Freight Tonnage

The development of iron ore deposits alone will provide a heavy tonnage for Canada's railways, without considering the tonnage that is bound to result in other commodities, due to the business thus created.

Mesabi and Vermillion ranges in the United States would be the chief competitors of Canadian ores. The tonnage moved from these ranges follows:

Year	Mesabi	Vermilion
1918	40,396,215	1,192,908
1919	32,003,169	1,092,908
1920	37,147,705	1,007,433
1921	16,349,896	869,313
1922	28,063,000	1,207,000

Ontario's Consumption of Iron Ore 1896 to 1921: Bounties Paid Shown

Year	Native Ore Smelted Tons	Native Ore Per Cent.	Foreign Ore Smelted Tons	Foreign Ore Per Cent.	Total Ore Smelted Tons	Pig Iron Made Tons	Amount Ont. Govt. Bounty Paid
1896	15,270	30.86	35,868	70.13	51,138	28,302	$ 4,000
1897	2,778	7.38	34,722	92.62	37,492	24,011	2,603
1898	20,968	27.22	56,055	72.77	77,025	48,253	8,647
1899	24,498	22.25	85,542	77.74	110,040	64,749	12,752
1900	22,877	22.72	77,805	77.27	100,692	62,386	6,737
1901	109,109	56.09	85,401	43.89	194,510	116,370	25,000
1902	92,883	49.69	94,079	50.41	186,962	112,687	25,000
1903	48,092	31.81	103,137	68.19	151,229	87,004	25,000
1904	50,423	22.56	173,182	77.44	223,605	127,845	15,236
1905	61,960	13.90	383,459	86.10	445,419	245,704	25
1906	101,659	20.40	396,463	79.60	498.032	275,558	
1907	120,156	23.60	388,727	76.30	508,883	286,216	
1908	170,215	33.20	342,747	66.80	511,962	271,658	
1909	220,307	28.80	543,544	71.20	763,851	407,013	
1910	143,284	17.40	678,890	82.60	822,174	447,351	
1911	67,631	7.40	848,814	92.60	916,445	526,610	
1912	71,589	6.50	1,062,071	93.50	1,133,660	589,593	
1913	132,708	10.90	1,095,561	89.10	1,228,269	648,899	
1914	163,779	17.80	752,560	89.20	916,339	556,112	
1915	293,305	32.00	623,094	68.00	916,339	493,400	
1916	215,366	16.90	1,056,810	83.10	1,272,176	699,202	
1917	94,318	7.10	1,221,881	92.90	1,316,199	691,233	
1918	99.852	6.75	1,400,085	93.25	1,499,937	751,650	
1919	97,514	7.50	1,201,834	92.50	1,299,348	623,586	
1920	152,176	10.40	1,341,661	89.60	1,493,937	748,173	
1921	113,083	13.50	723,979	86.50	836,941	438,013	
	2,705,720	15.50	14,807,850	84.50	17,512,562	9,382,576	$125,000
Av. per year	104,000		569,500		673,500		

Federal Bounties Paid to Aid Development of Steel Industry

Fiscal Year	Pig Iron	Puddled Bars	Steel	Manufactures of Steel	Total
1884	44,090	......	......	......	44,090
1885	38,655	......	......	......	38,655
1886	39,270	......	......	......	39,270
1887	59,576	......	......	......	59,576
1888	33,314	......	......	......	33,314
1889	37,234	......	......	......	37,234
1890	25,697	......	......	......	25,697
1891	20,153	......	......	......	20,153
1892	30,294	......	......	......	30,294
1893	93,896	......	......	......	93,896
1894	125,044	......	......	......	125,044
1895	63,384	......	......	......	63,384
1896	104,105	5,611	59,499	......	169,215
1897	66,509	3,019	17,366	......	86,894
1898	166,654	7,706	67,454	......	240,814
1899	187,954	17,511	74,644	......	280,109
1900	238,296	10,121	64,360	......	312,777
1901	351,259	16,703	100,058	......	468,020
1902	693,108	20,550	77,431	......	791,089
1903	666,001	6,702	729,102	......	1,401,805
1904	533,982	11,669	347,990	15,321	908,962
1905	624,667	7,895	676,318	231,324	1,540,204
1906	687,632	5,875	941,000	369,832	2,004,339
1907	385.231	312	575,259	338,999	1,299,801
1908	863,817	......	1,092,201	347,135	2,303,153
1909	693,423	......	838,100	333,091	1,864,614
1910	573,969	......	695,752	538,812	1,808,533
1911	261,434	......	350,456	526,858	1,138,748
1912	......	......	......	166,750	166,750
Total ..	7,707,648	$113,674	$6,706,990	$2,868,122	$17,396,434

Note—$127,755 paid on angles and plates between 1904 and 1906; the rest on rods.

Great Benefit of Mine Development is Colonization

Brockville Recorder-Times.

The direct profit from the gold and silver mines of Northern Ontario is very large, but perhaps even more important is the function of the precious metal in encouraging colonization and the development of industry. The lure of gold drew an army of fortune-seekers to Australia and thus helped to build up the great sheep-raising industry. California, once a famous gold-producing state, now draws its greatest wealth from fruit and other products of the soil. The Fort William Times-Journal forecasts a similar experience for Northern Ontario:

"This means a great deal more than mere production of gold. It means the springing up of settlements, the tilling of the available farm lands all along the clay belts that border the gold-bearing hills. It means towns and villages, merchants, farmers and tradesmen. It means the filling up of the territory that has long formed a barrier between Eastern and Western Canada and the promotion of Canadian unity. It is more than a mere local phenomenon, it is a development of Dominion-wide interest. From what has been learned in the exploration of the ore bodies in the Porcupine field, the gold mining industry will be as permanent in Northern Ontario as it can be anywhere, and, long ere the mines are exhausted, in the distant future, Central Canada will be a hive of industry that needs no extraneous aid to make it prosper."

The filling up of the vast territory between older Ontario and Manitoba is a matter of the highest national importance, and there is no doubt that it will be helped by the agency to which the Times-Journal refers.

RAND TRIES LIQUID OXYGEN EXPLOSIVE

Causes Loss of Time in Gold Mines but Said to be Favored in Coal Operation

JOHANNESBURG.— Considerable interest has been aroused on the Rand by the possibility of the introduction of liquefied oxygen on the mines as an explosive substitute for dynamite. Inquiries show that tests of a new oxygen cartridge will be made shortly, and that a representative of the government will probably be present at the tests. It seems that hitherto the chief objection to the introduction of the cartridge on the gold mines has been the arrangements of the blasting times under which it is at present possible, by using dynamite, to proceed with an orderly succession of blastings, and what is practically a simultaneous charging up of the various holes.

In view of the fact that the oxygen cartridge cannot lie for any length of time in a tamped hole without deterioration of its explosive power, if this oxygen explosive were adopted, it would mean that before any portion of rock could be blasted and the holes charged the miner would have to wait until his adjoining section had completed its blasting. For, under the mining rules, the breaking of rock by explosion must proceed in such order that dust and foul air can be carried away without danger to those waiting to blast in a contiguous working place.

The necessity of waiting, therefore, it is suggested, causes delay, which prejudices the use of liquid oxygen on the gold mines of the Rand; although its possibilities in coal mines are said to be very great.

In connection with this, the Liquid Air, Ltd., which has carried out the only blasting experiments with oxygen in this country, states that several mining and railway engineers, and others, have witnessed these experiments and been impressed with it as an excellent explosive, and safe to handle. It is pointed out, however, that as far as substituting it for use in the gold mines is concerned, this is impossible under present methods of working, but for open working in quarries and metalliferous mines or for coal mines, or where there is indiscriminate blasting, it is most suitable.

The success attained in Silesia, Alsace-Lorraine, and the United States is emphasized. It is also remarked that there is no difficulty in getting the cartridges to the face of the workings within half an hour. As a matter of fact, the liquid oxygen is conveyed to the working face in specially-constructed vessels, and the cartridges are then soaked in the liquid oxygen. Until this is done it does not become an explosive. The cartridges can be kept in the soaking vessel until the time for charging up arrives, so that the evaporation of the cartridge does not begin until it is taken out of the soaking vessel and placed in the hole to be blasted.

FAVOR BOUNTY TO BOND GUARANTEE

Both Ontario and British Columbia Want Ottawa to Lend Aid

A bounty instead of a bond guarantee is the most favored method of assisting the iron ore industry. The Ontario iron ore committee has recommended a bounty on ore produced and marketed, the bounty to run for 10 years. British Columbia will give $2,000,000 in bounties. In both cases the federal government is asked to assist. British Columbia believes that Ottawa will favor a bounty. The minister of mines, Hon. W. Sloan, recently discussed this question, when he said:

"I doubt the wisdom, in absence of a definite nature, in holding out by legislative enactment an offer of the guarantee of the principal and interest of corporation bonds to the extent of millions of dollars.

"The Government have some reason to think that the federal government would be more likely to aid in the establishment of an iron and steel industry in the province by way of a bounty than by way of a bond guarantee. Believing this I think the Government would be justified in offering a bounty on ores, which bounty in the aggregate will be well within our means."

Real Maps of
Kirkland,
Rouyn,
South Lorrain, etc.

Kirkland 24 x 60, showing best part 12 townships, $3.00.
Rouyn, 24 x 48, showing all Boischatel and Rouyn, $1.50.
Maps of all other important Mining Camps.

G. W. DIXON
"The Map Man"
Established over 20 years
Cobalt - Ontario

ONTARIO
Diamond Drilling Co.
Limited

CONTRACT DIAMOND DRILLING
FOUNDATION SOUNDINGS

Box 755, SUDBURY, ONT.

Smith & Travers Co.
Limited
Contract Diamond Core Drilling.
Foundation Testing.
Exploring Engineering.
Write for prices.
Sudbury, Ontario, Canada.

FORT FRANCES

A Place of Industry and Perseverance

Many Physical Advantages

THE Town of Fort Frances is situated on Rainy River only about one mile from beautiful Rainy Lake in the very centre of the great forest region of Central Canada. It is a modern town in every respect. It is the judicial centre of the Rainy River District, and is the headquarters of extensive lumbering and mining interests.

The Town itself is peculiarly favored. It has 4,500 inhabitants and serves as well a large and prosperous farming and mining section adjacent. The town has over nine miles of large watermains, seven miles of sewers; over eleven miles of side walk, more than half of it cement. A little over a year ago the town laid 3,000 feet of granolithic pavement covering the principal streets. There is, too, a splendid electric light and telephone service.

The Town is showing a steady development. Building permits registered for the year call for a building program of over $100,000, about half of this amount being in new dwellings. A fine theatre is also in course of construction, and there is a substantial addition to the Fort Frances Times block.

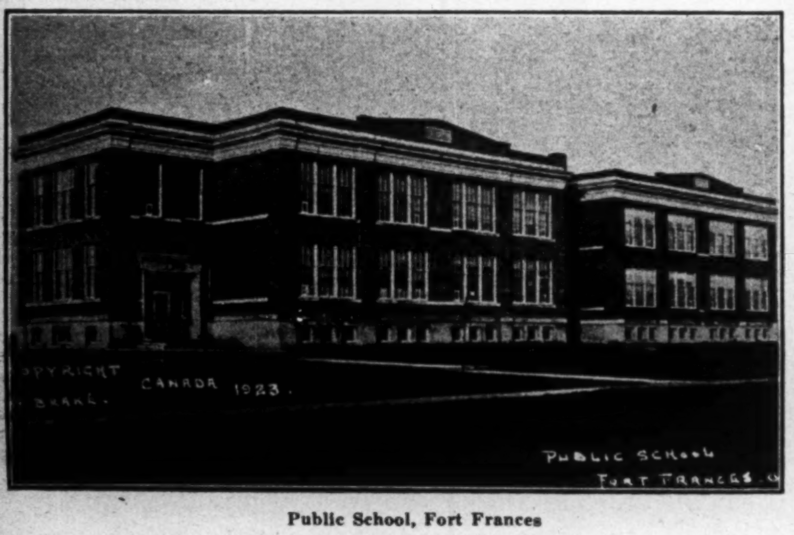
Upper row, standing, left to right:—Aldermen B. V. Holmes, W. Woodward, Joseph Parker, L. Frenette and J. W. Walker, Clerk and Industrial Commissioner. Lower row, sitting, left to right—Alderman Alex. Thompson, Mayor J. P. Wright, Ald. Geo. Wheeler.

A Place of Beauty and Comfort

THE physical surroundings of Fort Frances are unusually attractive. It has wide, tree-shaded streets with numerous beautiful homes. There is a splendid, new Carnegie Library while the Court House for the district is also located here.

The town is particularly favored in the matter of schools. It has public, with 16 rooms and 14 teachers, and high schools of five rooms, both newly erected and thoroughly modern buildings, as will be seen from the accompanying photographs. There is also a Separate School, and an Indian Residential School, under the charge of the Roman Catholic Church, which is reputed to be the best equipped school of its kind in Canada. There is also a branch of the Winnipeg Business College located in the Town. There is a school nurse employed by the Board of Education to supervise the health of the pupils.

All religious denominations are represented in the town. The town has also a theatre and picture theatres and a splendid weekly paper in the Fort Frances Times.



Public School, Fort Frances

The Town Council

Mayor, J. P. WRIGHT

Aldermen

B. V. HOLMES	**ALEX. THOMPSON**
Geo. WHEELER	**JOSEPH PARKER**
W. WOODWARD	**L. FRENETTE**

Clerk and Industrial Commissioner
J. W. WALKER

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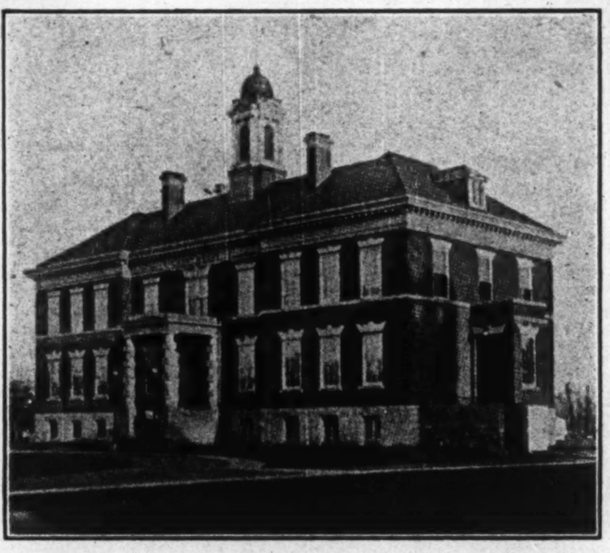
BY BRAKE
HIGH SCHOOL
FORT FRANCES ONT.

High School, Fort Frances

A Great Summer Section

Fort Frances is on the Clover Leaf Trail, a splendid highway that links Duluth with Winnipeg, and an ever-widening number of tourists are taking advantage of its wonderful natural vacational advantages. There is splendid hunting and fishing and delightful camping places in the surrounding lakes and rivers. The town, too, has its own camping grounds that are open to the traveller or summer visitor. There is a splendid beach on Rainy Lake, with bath houses, canoes and motor boats, open air dance hall. With its ideal surroundings the Town is rapidly becoming known as a summer resort.



Court House, District of Rainy River

Some Potential Advantages

The section about Fort Frances is remarkably rich in ore-bearing formations. Enough prospecting has been done to suggest the great possibilities in mining that are in prospect for this section, and it is expected that the near future will see marked developments in this line.

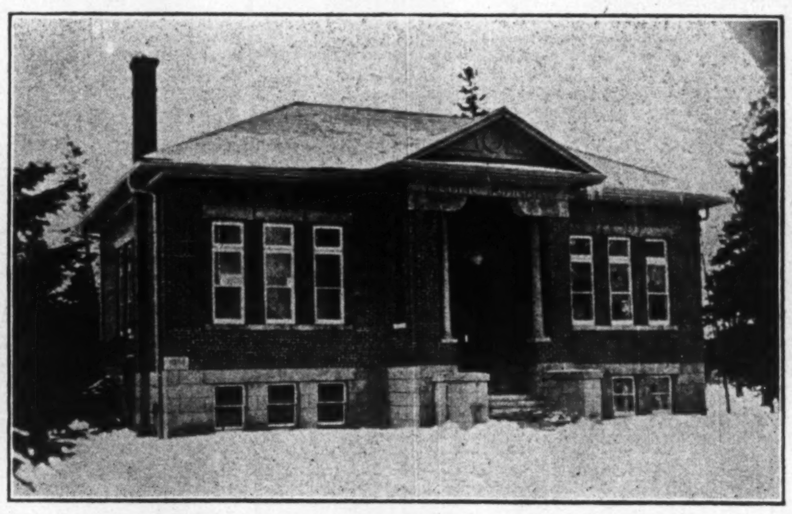
There is also a wealth of undeveloped Hydro power. At the present time there is a 36,000 horse-power development under consideration at a proposed cost of some four million dollars. There is a ready market for this power when developed to meet the present needs of the plants in the vicinity, and to provide for their expansion.

Mines, Fields and Forests

While lumbering is the largest single industry of the section with several large companies operating in the section, the Shevlin-Clarke Company alone shipping 100,000,000 feet annually and a considerable number of smaller operators employed in cutting pulp and in rough lumbering, it is not the only industry.

Almost equal to it in importance is the pulp and paper with the Fort Frances Pulp and Paper Company manufacturing over 100 tons a day.

The fertile valley of the Rainy River is ideal for vegetable and grain culture, and there is a great and growing demand for these products for seed purposes.



Public Library, Fort Frances

Industries We Have and Want

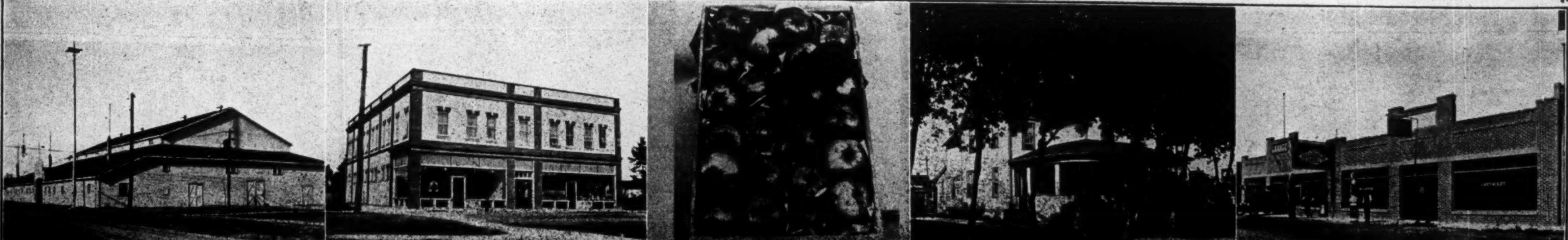
Industries at present located at Fort Frances include

The Shevlin-Clarke Lumber Company.
The Border Lumber Company.
R. Lockhart Lumber Company.
Fort Frances Pulp & Paper Company.
Russell Bros. Engine and Power Boat Works.
John East Company, sash and doors and general contracting.
Pioneer Builders, Ltd., general contractors.
F. G. Meyers, house building contractor.
Northen Grocery Company, Ltd.
E. J. Callaghan, Ltd., wholesale grocers.
Riverside Garage.
John McVey Garage.
Motor Service Garage.
Lakeside Fish Company.
Fort Frances Fish Company.

And 65 business firms including every class of general and manufacturing business.

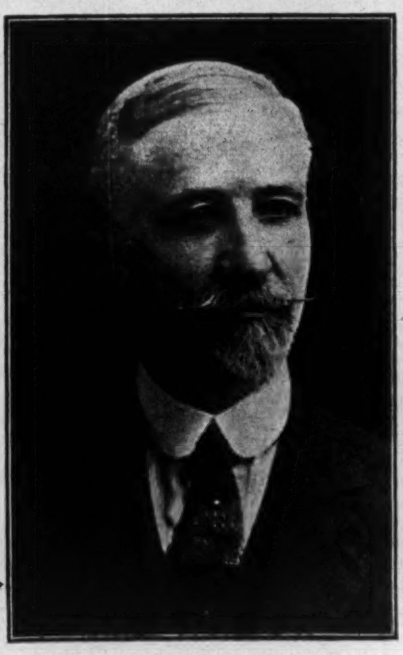
There is a splendid opening for the following industries:

Iron Smelter. All classes of Wood Working, Excelsior and Box Manufacturing Plants. Also Flour and Cereal Mills.

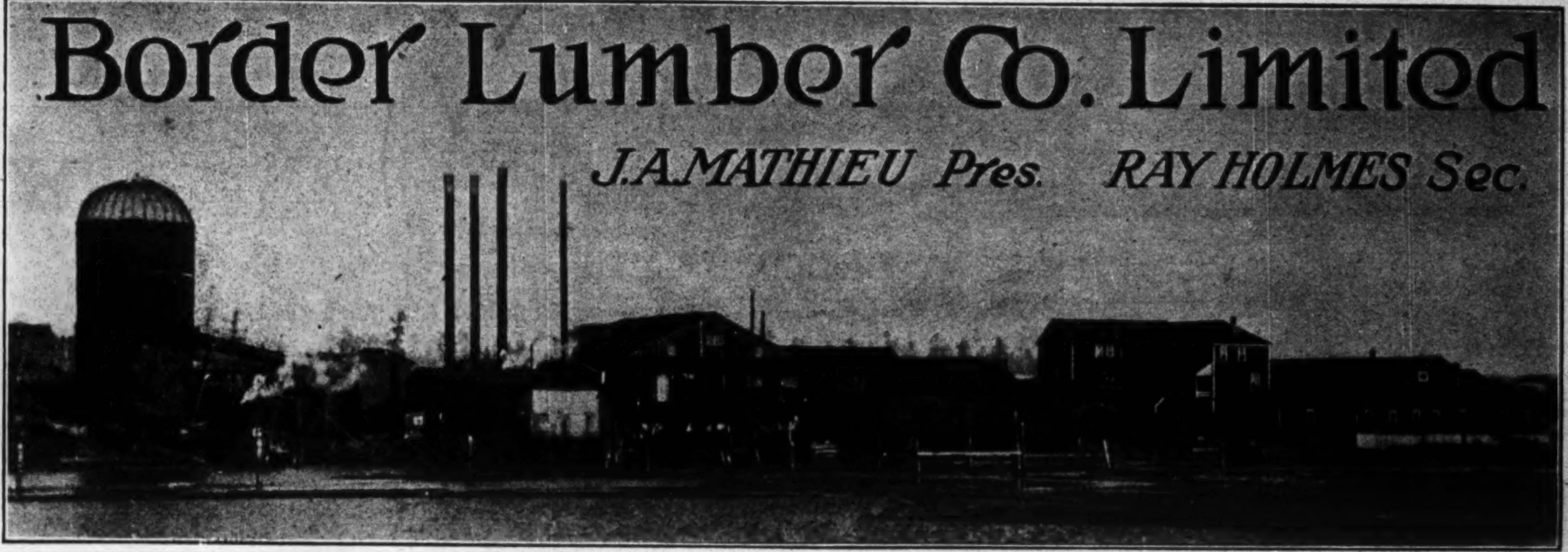


Some Fort Frances Buildings, from left to right:—The Arena, The New Masonic Building, Box of apples weighing 35 lbs. grown on one tree at Fort Frances, One of Fort Frances' residences, Garage.

FORT FRANCES PROGRESSIVE INDUSTRIES



J. A. MATHIEU.
President.



RAY HOLMES,
Secretary.

Manufacturers and Wholesalers of Northern Pine Lumber Up-to-date Saw and Planing Mills

Markets - Canada and United States

Timber Resources of Rainy River District—By James A. Mathieu, President of Border Lumber Co., Ltd.

THE RAINY RIVER DISTRICT covers an area of approximately 6,000,000 acres, the greater part of which is still covered with dense virgin forests. These forests consisting of pine and spruce woods, constitute a supply of timber and pulpwood sufficient to last for a period of at least fifty years; at the present time 75% of the said timber and 95% of the pulpwood is in possession of the Crown, thus giving vast opportunities for the development of this great natural resource of the district.

There is situate in Fort Frances, District of Rainy River, one large and modern paper mill, with an average daily capacity of 150 tons. There are six saw mills, two box factories, and one stave mill in the District. In Fort Frances are situated two of the largest mills manufacturing pine lumber and soft woods in the Province of Ontario. The other two saw mills are on Rainy Lake, a few miles from Fort Frances. The combined output of the six saw mills is 150,000,000 feet of pine lumber annually and the output of the paper mill is 45,000 tons newsprint per annum.

The box factories and stave mill are at Emo and Rainy River respectively, and carry on an extensive trade in the manufacture of boxes and barrels.

The lumber industry employs annually about 3,500 men, the majority of whom live in Fort Frances, and in the winter months forty lumber camps operate in getting out the large amount of timber required to keep these mills running during the sawing season or summer months.

The annual payroll of the lumber and paper industry amounts to $3,000,000, and the combined value of the paper and lumber product is $6,000,000 yearly.

Thus when such a large number of men are employed, and the output and expenditure so great, there is a wonderful future in the development of this great natural resource of vast forests of timber and pulpwood in the Rainy River District.

Watson & Lloyd

General Merchants

Established 1905

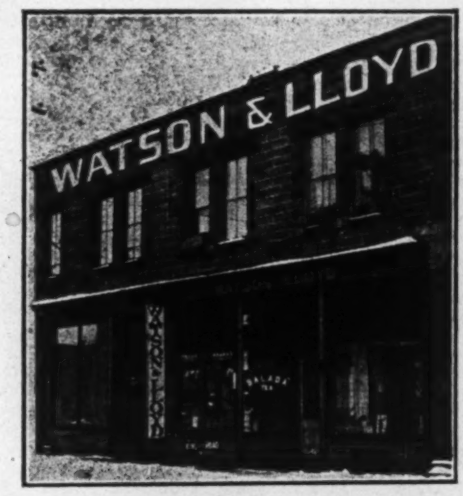
Serving the Rainy River District with General Merchandise, Groceries and Fresh Fruits in season.

We equip campers with complete outfits.

We equip hunters with complete outfits. Guides furnished.

200 American Tourists on our patronage list now.

Past service is our recommendation. Correspondence solicited.



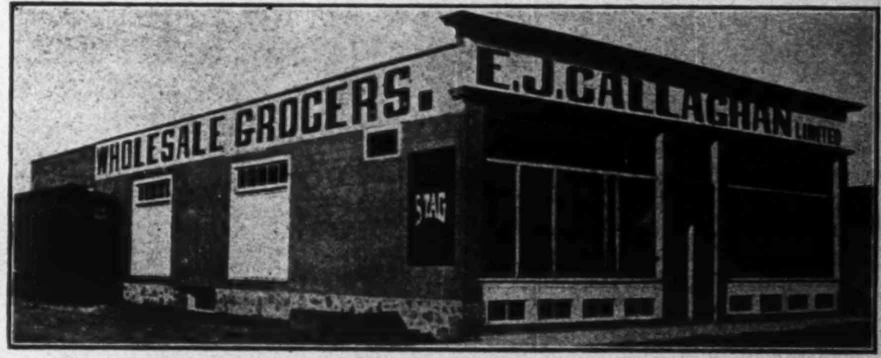
E. J. CALLAGHAN, LIMITED

Fort Frances, Ontario

E. J. Callaghan,
President & Manager

Established 1920

Serving Rainy River District Since 1920



EMPEROR HOTEL

Prop. Jas. Harty

ALL year round commercial and tourist hotel, serving the transient public since 1906.

65 rooms and sample room. Unlimited heat and light.

Steam heated, running water, bath and lavatories.

Unexcelled dining room service.

NORTHERN GROCERY COMPANY LIMITED

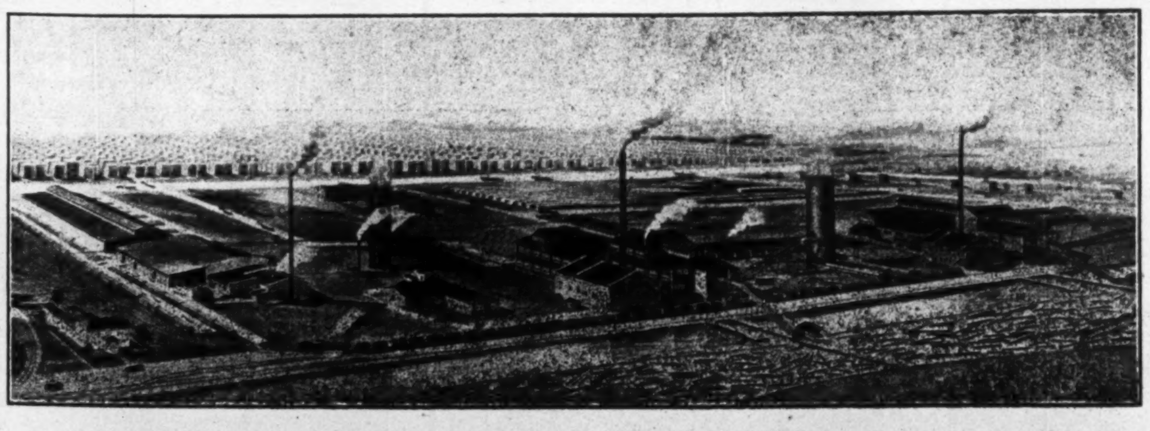
Wholesale Grocers

Fort Frances Ont.

Serving the entire Rainy River District

Established 1915

NORTHERN GROCERY COMPANY LIMITED



Manufacturers and Wholesalers

WHITE PINE NORWAY PINE

Shevlin-Clarke

SHEVLIN
LOG MARK REGISTERED

Company Limited

FORT FRANCES - ONTARIO

CANADA IMPORTS 138 MILLION STEEL PRODUCTS YEARLY

Developing Iron Ore Might Mean Their Production Here

HELP OTHER LINES

Might Mean Utilization of Coal in Big Way and Railways Would Benefit

In products of mineral origin, Canada for the year ending March, 1923, had an unfavorable trade balance of $212,688,000. The major portion of this is made up by the importation of steel products and coal. The development of an iron ore industry in the Dominion would quickly result in the further development of Canada's steel industry. Gradually Canadian workmen would be turning out products now being imported from the United States. Canadian ores would be employed. Ultimately, Canadian fuels would meet up with this new and expanding market. Canadian railways would find that the ores, the coal, and the finished steel products, were providing them with a tremendous increase in revenue.

Here is the position of Canada's mineral, and products of mineral trade, for the fiscal year ending March, 1923:

	Exports	Imports
Steel products	$ 51,138,000	$138,724,000
Non-metallics	27,647,000	139,919,000
Non-ferrous	44,358,000	37,493,000
	$123,143,000	$316,136,000
		123,143,000
Adverse balance		$192,993,000

The immediate consideration is with steel products and the 1923 balance sheet of this trade gives a good line on the many products which Canada buys, the production of which in Canada might be stimulated by the development of the iron ore industry.

The figures:

Principal Exports of Iron and Steel Products	Value	Per cent. exported to U.K.	U.S.	Other Countries
Autos, passenger	$25,606,000	35.6	0.3	64.1
Autos, freight	1,445,000	3.5	0.1	96.4
Auto parts	2,355,000	18.1	5.7	76.2
Scrap iron and steel	2,143,000	...	96.4	3.6
Iron, pigs, blooms, billets, ingots	1,800,000	0.6	98.7	3.6
Wire	2,001,000	12.4	1.2	86.4
Tubes, pipes and fittings	1,266,000	8.2	2.2	89.6
Rolling mill products	869,000	...	38.1	61.9
Castings and forgings	669,000	0.2	97.9	1.9
Harvesters and binders	1,091,000	5.0	0.1	94.9
Ploughs and parts	1,086,000	0.9	56.1	43.0
Threshing machines and parts	694,000	...	40.3	59.7
Mowers and reapers	625,000	3.9	...	96.1
Drills	603,000	3.0	0.8	96.2
Other farm implements and machinery	1,967,000	9.4	23.0	67.6
Engines and boilers	1,778,000	0.2	92.5	7.3
Machinery, except agricultural not otherwise specified	1,584,000	34.0	34.9	31.1
Hardware and cutlery	1,139,000	26.1	10.8	63.1
Sewing machines and parts	877,000	21.9	8.1	70.0
Tools	269,000	22.6	24.8	52.6
Other miscellaneous	1,271,000	17.4	40.4	42.2
Total exports	$51,138,000			

DISTRIBUTION OF CANADA'S EXPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES

To	Value	Per cent.
United Kingdom	$11,557,000	22.6
Other British Empire	20,273,000	39.6
Total British Empire	$31,830,000	62.2
United States	9,409,000	18.4
Other foreign countries	9,899,000	19.4
Total	$51,138,000	100.0

Principal Imports of Iron and Steel Products	Value	Per cent. imported from U.K.	U.S.	Other Countries
Iron ore	$ 2,589,000	0.1	79.5	20.4
Structural iron and steel	5,588,000	1.4	98.4	0.2
Steel plates and sheets	19,383,000	27.4	72.6	...
Band and hoop iron or steel	5,432,000	11.8	84.8	3.4
Bars, including steel rails	5,289,000	4.2	95.0	0.8
Castings and forgings	3,305,000	7.8	92.2	...
Wire	3,079,000	32.4	67.3	0.3
Tubes, pipe fittings	2,657,000	6.9	92.2	0.9
Pigs, blooms, ingots, billets	2,277,000	41.7	56.4	1.9
Automobiles, passenger	11,857,000	1.1	98.8	0.1
Automobiles, freight	1,889,000	4.1	95.9	...
Automobile, parts	14,135,000	0.4	99.5	0.1
Automobiles, engines	4,154,000	0.3	99.7	...
Other engines and boilers	2,836,000	8.5	91.4	0.1
Farm implements & mach.	8,424,000	0.4	99.1	0.5
Machinery, textile	3,122,000	11.5	86.1	2.4
Do., printing and bookbinding	2,831,000	1.8	97.8	0.4
Do., office and business	1,382,000	0.4	99.5	0.1
Do., mining and metallurgical	1,620,000	6.5	93.5	...
Do., metal working	1,281,000	3.9	92.2	3.9
Do., paper mill	1,170,000	19.7	79.8	0.5
Do., household	966,000	4.7	95.2	0.1
Do., other	11,695,000	4.1	95.5	0.4
Hardware and cutlery	3,406,000	28.3	65.1	6.6
Tools and hand implements	1,541,000	8.7	89.2	2.1
Stamped and coated prod.	1,351,000	5.7	92.8	1.5
Vehs. oth. thn. automobiles	1,244,000	5.9	94.1	...
Rods	882,000	1.3	88.0	10.7
Chains	541,000	26.4	73.5	...
Other Miscellaneous	12,798,000	5.7	92.6	1.7
Total Imports	$138,724,000			

SOURCES OF CANADA'S IMPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES

From	Value	Per cent.
United Kingdom	$12,671,000	9.1
Other British Empire	376,000	0.3
Total British Empire	$13,047,000	9.4
United States	124,372,000	89.7
Other foreign countries	1,305,000	0.9
Total	$138,724,000	100.0

In discussing this feature of Canada's trade recently, F. C. C. Lynch, of the Federal Resources Department, said that present development results each year in a very heavy "trade deficit." Canada depends largely upon imported iron ores, but the weight of the adverse trade balance is due to the large proportion of Canada's iron and steel imports that take the form of highly manufactured products. Despite the strength of British steel industries, nearly 90 per cent. of Canada's imports in 1922-23 came from the United States, and less than 10 per cent. from the United Kingdom In the field of secondary industry Canada is steadily widening the scope of her own specialized steel manufacturing industries, but the volume of Canadian purchases from the United States suggests that Empire steel manufacturing industries have not devoted to the Canadian market for products the selling power that it merits. Surplus of imports over exports, 1922-23—$87,586,000.

The following annual importation of iron and its products are given in the Canada Year Book:

	From United States		From All Countries
1918...	$189,769,921	1918...	$195,248,713
1919...	185,116,309	1919...	192,527,377
1920...	178,661,606	1920...	186,319,876
1921...	226,862,465	1921...	245,626,453

Our exports of iron and its products for the same period are as follows:

	To United States		To All Countries
1918...	$ 12,124,875	1918...	$ 64,837,223
1919...	22,696 645	1919...	81,910,926
1920...	25,717,121	1920...	81,785,829
1921...	19,630,413	1921...	76,500,741

Total imports from all countries of iron and iron products for the four fiscal years, 1918-1921:

... ... $818,722,419

Total exports for same period 305,034,719

(Adverse Trade Bal., Iron and its products) $513,687,700

NEW EXPLOSIVE CONCERN

National Explosives is a new concern formed by uniting Olympic Powder Works at Deseronto and Thompson Powder Co.

Old Helen Mine, Michipocoten, which has been worked out and is about the only iron mine in Canada in that position. It was owned by the Algoma Steel Corp.

Romantic Story of Early Days of N. Western Ont. Intimately Told by One of Hardy Pioneers

Great Deal of Effort and Money Put Into Country but no Real Test Has Been Made—Prospects of Finding Gold With Porcupine Experience Greater Than Ever.

By JOHN R. LUMBY,
Editor, Fort William Times-Journal.

It was about the year 1895 when those traveling across the continent via the Canadian Pacific began to notice a curious change in the habits of the travelers who were traversing the prairie provinces, and those who were passing through the district east of Winnipeg and as far as Schreiber Those who boarded the train on the prairies had samples of wheat, which they poured from hand to hand, winnowing the dust from it by blowing; those in Western Ontario produced bottles containing fragments of quartz, with nuggets of gold showing among them, or else had larger pocket samples, which they offered for examination to their traveling companions, usually accompanied by the loan of a magnifying glass, so that the free gold would be plainly visible. For the discovery of gold on the Lake of the Woods and in the whole district from Rat Portage to Fort William had been made and already the prospectors were busy in the woods, and the country was being overrun by surveyors, dividing it into forty-acre locations.

Winnipeg was smitten with the gold fever, and, indeed, it spread throughout Manitoba. First, the name of Rat Portage, now changed to Kenora, was exploited, then, as the gold discoveries spread farther eastward Agur and Beck formed a townsite company, and, with the co-operation of the Canadian Pacific Railway, began to advertise the name of Wabigoon. Before long, Wabigoon was to be seen in big headlines in every Western paper, and it was through this town and its creators, Agur and Beck, that I gained my first introduction to the Western Ontario gold fields and left the wheat fields for the mines.

Druggist a Pioneer

In 1896 the chief gold-mining interests centred at Rat Portage, which was the starting point for the mines that were first opened up on the Lake of the Woods. The credit for the first boom in gold mining on the Lake of the Woods is due to J. F. Howard a Winnipeg druggist, whose store was on Main Street, and who spent all the profits that he had made, or was ever likely to make from the drug business on the Sultana gold mine. This is situated on an island in the Lake of the Woods, a few hours' run by steamer from Rat Portage, and it was here that Howard sank the first shaft on the Lake of the Woods that amounted to anything, built his mill and produced real gold bricks. It was real gold bricks from the Sultana that put the Lake of the Woods on the map as a gold field. J. F. Howard ended his mining career a disappointed man but he deserves a monument as a pioneer, if anyone does. He was exploiting a field unknown, not only to himself, but to all the gold-mining experts who visited it. Neither he nor any of those associated with him had ever tried to operate a gold mine before, while there was not an engineer in the district who did not have the whole trick of mining in this formation to learn. The Sultana apparently was a huge lens of auriferous quartz which produced pay ore while it held out, but which came to an end. It was believed at the time, and the experience in the Porcupine fields has tended to show that it only needed further work to uncover other ore bodies, but knowledge, faith, and funds, were lacking, and the Sultana closed down. On Sultana Island there was also the Ophir mine, which yields marvelously rich ore on the surface but it was tied up in litigation and was never developed as it should have been. A word is due to the work done by Burley Smith at Sultana Island. Endeavoring to develop an extension of the Sultana vein, Burley Smith built a coffer dam in the Lake, intending to sink a shaft there, but this work never came to anything. It is an instance of what mad things were done in the days of early boom.

Regina and Mikado

Two other mines attained notoriety at the same time as the Sultana, the Regina and the Mikado. The Regina, developed by General Wilkinson, was the deepest shaft on the Lake of the Woods, but was never managed as it should be. Extravagance in its equipment precluded all hope of making it pay. A battery of Tremaine steam stamps were credited with dropping oil on the plates, preventing the recovery of the gold which was extracted and when it came under the control of a new manager, Peterson, of New York, the extravagance became still more marked. When I first knew the Mikado, Breidenbach was the manager. That was at the time of the great strike. The Mikado ore was streaky. At times it was lean and at times rich, but there came a day when the drillers ran into a pay-streak that astounded everyone. They blew out a dark ore, every particle of which was seamed with gold, not little nuggets, but wire, leaf and mass gold. So peculiar was this ore that the bureau of mines, after inspection, gave it a new name and called it makadoite. So rich also was it that the miners could treble and quadruple their day's pay by dropping ore into their boots, down their trouser legs, or into their socks. It is estimated that tons of ore, worth thousands and tens of thousands of dollars, were taken from the pay-streak in this way. H. A. Guess, who was later operating the Keewatin reduction works, told me that, years after the big strike was made, men would blow into his office with the same story, that they had been prospecting a bit and had gathered up a bunch of free-gold specimens, and would he be so good as to extract the gold for them? Almost invariably the bag of specimens were Mikado ore, easily recognized. After this strike, the Mikado ran into lean ore again, and finances became hard to secure, and the mine closed down.

Klondike Rush

It must be remembered, too, that, at the same time as the early discoveries of gold in Ontario, came the rush to the gold fields of the Klondike the latter being a placer country and hence a field where the poor man could make money. It was not recognized that the Ontario quartz mines required capital, and a lot of it, to make them into paying propositions. The bulk of the real mining men were headed for the Yukon, and Ontario only got the leavings.

Before passing from the Lake of the Woods to other fields it might be well to recall one instance of the misguided way in which attempts were made to develop the country. At the time, the concessions to the Engledue syndicate were much debated in the Ontario legislature, pro and con. As a matter of fact, when Col. Engledue came, asking for a concession of territory for prospecting, he picked out on the map two localities in which there was not a sign of a survey having been made. He did not realize at the time that possibly the reason for there being no surveys made was that the territory had been explored but nothing found. Anyway, having secured his concessions, and having offered a reward to any man working for him who found a vein worth testing, Col. Engledue left his company in charge of young Engledue, who had absolutely no qualifications as a mine manager or engineer, who lived in Rat Portage and enjoyed himself. The much-talked-of Engledue concessions died out quietly.

Another Bubble

Meanwhile, east of Kenora, south of Wabigoon, gold mining was active also. A bunch of men from Neepawa, Man., bought what was known as the Upper Neepawa mine as a prospect from Rocke Olson, who had stumbled on it in the spring. They paid $20,000 for it, and on the surface there seemed to be $20,000 in gold in sight. Ignoring the vein, under the guidance of a young engineer named Guernsey, the company sank a shaft, ran a drift and made an upraise, all without tapping the supposedly rich vein. Today the rich Upper Neepawa vein is yet to be sought. The company took up a second location on an island in the Lower Manitou Lake, but that too was shut down, in spite of the fact that it was believed to be promising, when the company's money was all expended.

At the same time, W. T. Kirby, of Winnipeg, was developing the Jubilee mine, said to have with him the Vivians, of Swansea. The Jubilee was, or rather is, situated at the northeast end of the Upper Manitou Lake, and is the most southerly of a string of locations which I expect will some day form one of the richest group of gold mines in Ontario. Kirby, like most of the other Manitoba operators, had not money enough to finish the job, and the Jubilee, as I hear recently, has since been restaked and is in the hands of Dryden Smith, a man who has stuck to the Manitou country ever since its discovery. From the Jubilee, towards Lake Minnehaha, runs a stretch of about six miles, parallel roughly with the government road, in which are situated the Big Master, the Little Master, the Paymaster, the Laurentian, all properties which have had some work done on them, and a number of locations which I have looked over time and again, and which are just as promising as any. The Big Master, to be brief, was exploited by an American company, and its history is not creditable to the methods of finance used. I have, however, been over both their veins, and both of them have every indication of being true and permanent. They can be traced as far as the country permits.

Laurentian Favored

Of all this group the Laurentian possibly demands a little more attention than others, since it produced the most sensational ore seen in the Manitou. Anthony Blum, of Boston, had been developing a mine called the Twentieth Century, on the Lower Manitou, a mine, which, as far as I could learn, had never produced and never would produce an ounce of gold. He moved his mill from this mine to the Laurentian and started development on the new property. Work had not gone very far before ore was being taken out, which was literally seamed with gold. The quartz sometimes appeared to be just held together with wires of the yellow metal. Yet in spite of this, under the Blum management, the mine went steadily into the hole and the Laurentian fell into the hands of the Imperial Bank, since which time it has changed hands a few times, but has never fallen into the possession of any company or individual with ability to develop it as it should be developed. This type of properties is a typical example of promising prospects ruined either by lack of capital, or mismanagement.

There were a lot of funny incidents in those early days. One American prospector, called Matchett, used to disappear into the woods, and on his return would take a surveyor out and have forty-acre locations run off, wherever he had found indications of quartz. Matchett would then go on a selling trip and dispose of these in the States. Those he could sell for $2,000 would be very satisfactory, and, if he had to dispose of the last few at three or four hundred dollars apiece, he was still making good money, as he had only his time and about forty dollars for survey laid out on each.

Glass Reef

One of the most peculiar incidents of the Manitou mining country was the development of the Glass Reef mine. I met George Glass, from North Dakota, on the government portage one day and he told me that he had the finest proposition in the world. He had found a reef, from three to five hundred feet wide, that would assay over three dollars a ton all over. He started a test pit on his reef, which was on the east shore of the Lower Manitou Lake, and, at about sixteen feet down, he struck a little bunch of the prettiest ore I ever saw. It was transparent quartz full of little specks of gold, about the size of a pin head, plainly visible when the quartz was held up to the light. This cinched the discovery. George Glass left for Dakota, organized the Glass Reef Mining Company and set to work. A shaft was sunk where the original pit was put down and at a depth of about seventy-five feet a drift was run along the reef for a long distance, and from this a cross-cut was run eastward, to daylight, coming out on the side of the hill. A mill was bought and erected, and altogether some hundred thousand dollars was spent on the property. When the mill was put into operation, one little gold brick was produced, and thereafter nothing more. An expert was called in and sampled the mine from stem to gudgeon, with the result that most of his assays showed only a trace of gold, and the fable of the reef was exploded. Since then I learn that the Glass Reef mine has been relocated, for the sake of the machinery. It might be worth knowing that, about a quarter of a mile inland from the Glass Reef workings, there is the outcrop of a strong quartz vein, in which I have found visible gold sticking in the little hollows of the decomposed ore.

CANADA'S DANGER

"If they ever got into a dispute over an embargo on pulpwood, an embargo on iron ore might follow, and it would take two or three years to start the iron ore industry going in Canada." F. H. Keefer, M.P.P., speaking at Port Arthur.

The Foley District

While these districts were being developed tributary to the Canadian Pacific Railway, another gold field was being opened up near Rainy Lake and the Seine River, a region then accessible from Tower, Minnesota, on the American side, and by steamer from Rat Portage, on this side. Here the Blackwoods, of Winnipeg, were opening up the Olive, a mine which seemed to promise well in its early stages. J. C. Foley was working the Foley mine, now again being developed, while the Golden Star was paying dividends, by scooping out all the visible ore in sight without laying any plans for the future. Major Whiteley was working the Ferguson, and there was the Lucky Coon, also apparently heading for becoming a producer, as was the A. D. 2. But the same fate pursued them all. They lacked money, when they had faith, and lacked faith when they had money. They were discouraged if ore values seemed to be inconstant, while they were sinking a hundred feet or so, and quit the game with their properties hardly scratched.

All the blame for the loss of reputation of the Western Ontario gold fields cannot be attributed to bad management, bad luck, or want of money. Pure fraud occasionally disgusted a host of people who had put in their money. I recall one man, who posed as a mining engineer, who came to the Manitou country ostensibly to develop a mining location and who established himself at an hotel, whence he issued time sheets, bills for supplies, and all the rest and collected the money from the East, without hiring a man or buying a stick of dynamite. I found this out owing to the fact that he used the names of men actually in the district on his false time sheets. One man who was prospecting in the Sturgeon Lake country was on his list as foreman. On his return from his trip he came to me, who had often done correspondence for him, and asked me to explain a letter which he had received, in which he was asked, as foreman of the work, for an independent opinion of the value of this property which was supposed to be under development. Before Paddy's reply was sent the so-called engineer had vanished from the district.

Mishaps Occasionally

We had our mishaps, too. I recall that, at the Edna mine, on the Upper Manitau Lake, the cook went out one morning to call the men on the night shift to breakfast—it was just a development shaft—and saw a drill stuck through the roller of the hand windlass. Running to the collar of the shaft he looked down and saw the three men lying dead at the bottom. They had drilled on a piece of unexploded dynamite, which had been left from the last blast, and had all three been instantly killed.

Exploration spread eastward from Wabigoon, and a new field was opened up south of Dyment station of the Canadian Pacific, styled the New Klondike, an attempt to use the reputation of the Klondike to advertise our wares. Here the Sakoose was developed by Senator Robert Watson and associates, who even had a railway run to carry the Sakoose ore to the Keewatin reduction works. The Sakoose had rich ore, but the vein varied in width. I went down the shaft in a bucket when it was about sixty feet or more deep, and could see the vein, sometimes only three inches wide, and then widening to four feet or more. It would not stand the cost of the railway haul to Keewatin, and this new effort to make a mine pay from the grass roots failed.

This history of the early efforts to establish a gold mining industry in Western Ontario must read like the story of a vast succession of failures and may seem to justify the collapse of the boom which left only an odd mine being worked here and there by the few who from time to time felt that there was something worth going after in this field. But the nonsucess of all these attempts must be judged in the light of the conditions under which they were made. First as has been mentioned, the Yukon

(Continued on page 43)

NORMAL MARKETS FOR BASE METALS WILL START BOOM

Low Price of Copper Has Seriously Curtailed Production in B.C.

INCREASE HOLDINGS

Big Concerns Can See Better Days in Offing and Are Making Plans Accordingly

From Our Own Correspondent.

VICTORIA.—When the metal markets of the world return to a condition more approximating normal than they do at present, British Columbia should soon forge ahead as one of the most important of the copper-producing regions.

Already, the production of the province's mines probably justify such a distinction, but the fact that prices of copper have been so severely depressed during recent years has had the natural effect of lowering output. The monetary importance of the industry has shown appreciable gains, but there has nevertheless been a substantial reduction in the number of operating concerns. Most of the mushroom mines that sprang into being when war conditions jacked up prices to a record level have ceased operation, but most of the larger plants have continued to turn out the metal.

In 1919 the value of the ore produced in British Columbia was slightly over $9,500,000. The shipping mines during that year were the Hidden Creek at Anyox, the Dolly Vardon, North Star, La Rose, and Golskeish in the Atlin country, Stikine and Liard mining divisions, and the Belmont Surf Inlet, Drum Lummon, Jacobson Smelters Steel Co., Patterson group, Ikeda Mines, Ltd., and Shuttle Island in the Skeena, Queen Charlotte and Bella Coola divisions, Marble Bay, Cornell, Annex Frac., Valdez Island Copper (Ingersoll), Blue Grouse, B. C.; Manganese (Hill 60), Puget Sound Iron Company, in the Vancouver Island division, and the Britannia Mining & Smelting Company on the lower mainland.

In 1923, when the production was valued at about $11,750,000, there were only eight producers in the province, namely, Berber, Premier, Esperanza, United Metals, Hidden Creek, Belmont Surf Inlet, Tidewater Copper, and the Britannia Mining & Smelting Company.

Since then the Tidewater Company, which has been operating at Sydney Inlet, has closed down. Efforts are being made to secure new capital from New York, but present prospects of early resumption are not any too bright.

The big companies are confident of the continued successful development of British Columbia copper properties, and, consequently, are strengthening their hold on the most promising of the copper mines. The Cranby Company is developing extensive claims near Anyox, and is working on claims in the Portland Canal district. The Britannia Mining & Smelting Company is actively prospecting claims in the Howe Sound region, and the Consolidated Mining & Smelting Company of Canada is acquiring control of important coast mines, including the Sunloch, on Vancouver Island.

With large corporations with abundant capital so actively interested in British Columbia's copper situation, there is little doubt that there will be plenty of money for investment in the province's industry. Apparently the only deterrent to bigger scale operation at present is prices, and with the looked-for gradual improvement in world markets, British Columbia should steadily gain in importance as a zone of metal production.

STAKED CLAIM AND FINE MINING PLANT AS WELL

Activity in Precious Metal Mining in N. W. Ontario Seems Near at Hand

Indications are that from now on precious metal mining in North-Western Ontario will receive that attention that has been almost entirely absent during the last 20 years. There are at present two or three active operations, a couple at Schrieber, and on the old Foley at Mine Centre. The Goudreau has been closed down for some time.

Last fall there was considerable attention given that section below Soo Lookout, which has practically been neglected since the Yukon gold rush of 1896. Tommy Powell, and Jock Hill, the latter brother-in-law of the late Benny Hollinger, went in and staked some properties. Powell got the Glass Reef claim, which, in the old days, was owned by Dokatians. When they abandoned it they left a $10,000 to $12,000 plant behind. Tommy will get that if he does his assessment work. There is a shaft down 300 feet.

Hill staked four claims 12 miles from Soo Lookout. There is a 60-ft. shaft in quartz with gold showing in the bottom. He traced a contact vein a quarter mile. English interests are in the district and are diamond drilling an important group of claims near Wabigoon Lake.

CHINA CLAY OUTPUT

The English China clay output for 1913 was close on a million tons. In 1922 it was 670,000 tons, while in 1921 it was 370,000 tons. The output capacity of the plants in Cornwall is about 1¼ million tons per annum. The margin of profit is small.

STURGEON FALLS

The Entrance to the Temagami Playgrounds by the Goldfields Motor Road

A Splendid Home Centre

THE Town of Sturgeon Falls, with a population of 5,800, is situated on the Sturgeon River, almost at its mouth on Lake Nipissing. The town itself is thoroughly modern in every respect. It has its own electric light plant operated by the town, that distributes power at a minimum cost. It has its own waterworks providing ample fire protection, which is supplemented by a modern fire alarm system and an automobile fire truck and a permanent chief and sub-chief to direct the volunteer fire department. The water is filtered and chlorinated for domestic use, thus providing a thoroughly sanitary water supply. The town is fully equipped with sewers, has four miles of cement sidewalks.

Fine Railroad Facilities

Sturgeon Falls is on the main line of the C.P.R. Montreal to Vancouver line, and has splendid railroad facilities, and is directly connected with central Ontario by the Toronto to North Bay and Toronto to Sudbury lines.

There are splendid roads in the vicinity also, and virtually every farmer in the district owns his own car, and upwards of fifty per cent. of the town population as well.

Exploring Committee:
(Left) A. Tomlinson, Guide; Dr. Levesque, Dr. Coulombe. W. L. Fortier, Sec.-Treas., E. Levesque, Ls. Rod. Vannier, Chairman, and his Cruiser "Ordelia."

Where the Road Bears North

There can be little doubt that the route by way of Sturgeon Falls is the logical course of the proposed Northern Highway.

There have been other courses suggested, but all of them lay themselves open to the objection of being overly costly, without any compensating advantages.

The road as it would run through Sturgeon Falls would be no longer than by any other route, and it would be immeasurably less expensive. It would follow the natural shore lines of lake and river, eliminating costly cuttings, while at the same time making a road of marvelous scenic beauty along the West Shore of Lake Temagami and opening up the whole section to summer visitors.

This route, too, would open up the great Temagami Forest reserve and would in this way make these great natural resources more immediately available, and would by making it easy to reach the seat of any fire with adequate fire fighting equipment, protect them from their greatest menace, while the land that this route would open up is of such a rich character that it would in itself pay for the work.

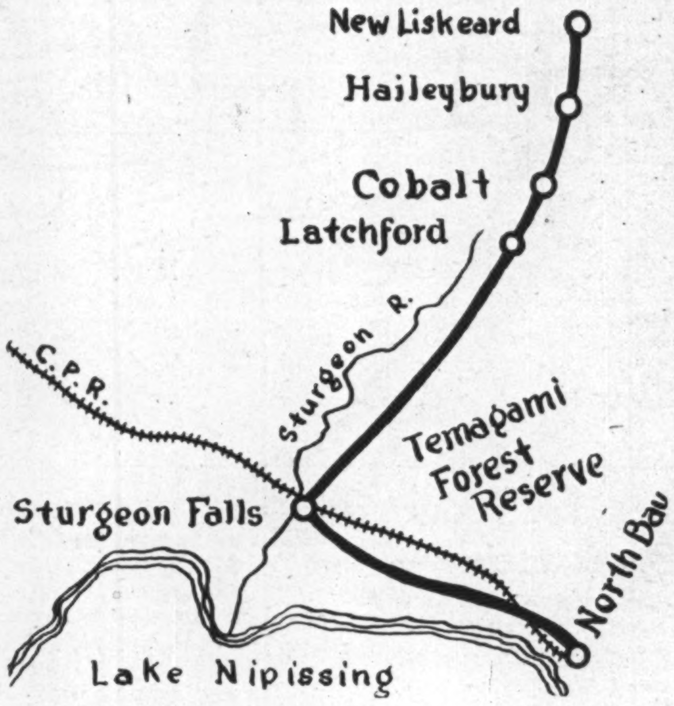
One of the strongest factors in favor of the Sturgeon River route, is the fact that so much of the work has already been done. In the rough estimate of 112 miles, which would take the road from North Bay to Cobalt via Sturgeon Falls, there already exists 40 miles of good automobile road and 15 miles more of road that a car could travel. This, if there were no other reasons should form a strong argument for this route.

PULP MILL, STURGEON FALLS, ONT.

Spanish River Pulp and Paper Company's Sturgeon Falls plant

Mayor Fortier,
Sturgeon Falls

Ls. Rod. Vannier
for ten years Town Clerk and
Treasurer of Sturgeon Falls



The Black Line Indicates Proposed Highway Via Sturgeon Falls

Unsurpassed School Facilities

STURGEON FALLS is peculiarly well supplied with schools and all of the highest standard of excellence. The Separate School with the attendant convent has 18 teachers and 900 pupils. These two buildings cost a quarter of a million to erect. In connection with this there is a training school for teachers. There is also a splendid modern public school with an attendance of 280 pupils.

Inducements for Industry

It is a town of beautiful homes, too, and most of the inhabitants own their own homes. This, naturally, makes for a very settled population, and is an incentive for manufacturing concerns to locate here. In addition to this inducement there is ample power available, and the town offers special inducements to any industry locating there. Any industry that makes extensive use of wood, such as box and furniture factories, would find a peculiarly favorable situation there, by reason of the limitless supply of raw material.

Rock Cut—West Arm

A Great Summer Paradise

Sturgeon Falls, the natural gateway of beautiful Lake Nipissing and the French River country, is becoming better known every year. In the immediate vicinity of the town are many large fishing camps owned by groups of individuals, many of them coming from well south of the line, drawn by the lure of this great unspoiled wilderness. The section is renowned for its fishing and, almost as much, for its game, and it is a summer resort without a peer.

One of its great advantages is its accessibility. By rail from Toronto and Sudbury, and by a good automobile road also from Toronto and Sault Ste. Marie. Every year the population of summer visitors is enlarging and cottages are springing up on many of the vantage points.

The town itself caters to the needs of these visitors. There is good hotel accommodation, and stores and garages that would do credit to a much larger place.

There is a splendid farming section surrounding so that the town and the visiting population is well supplied with necessary farm products.

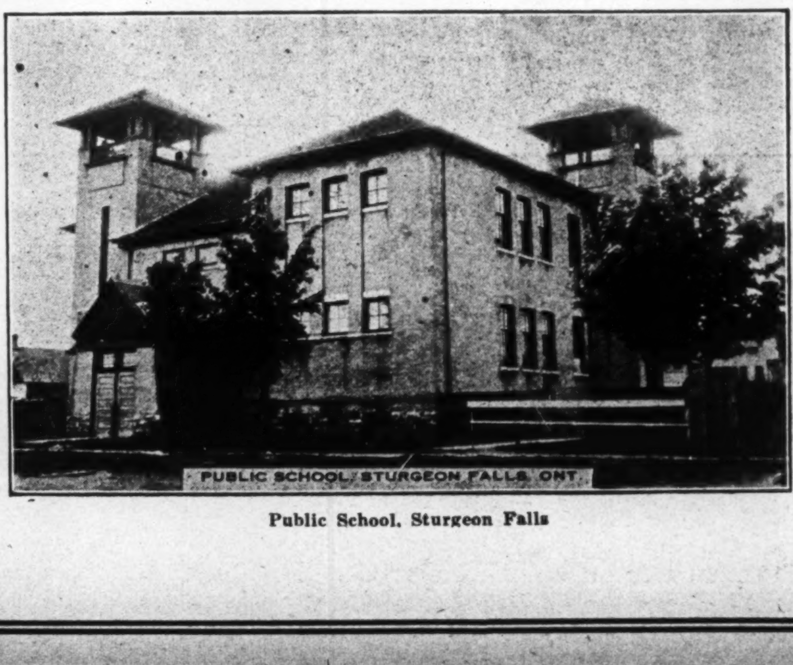
The Town Council

Mayor, W. L. FORTIER

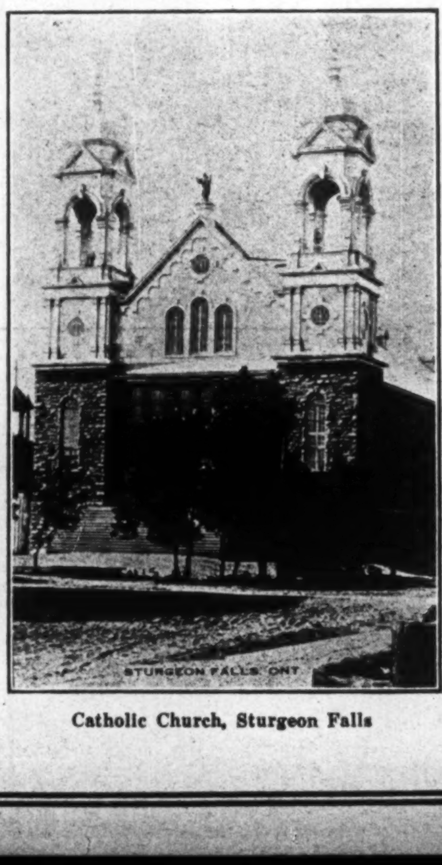
Councillors

A. A. AUBIN
HERB. MERCHANT
JOS. GAGNE
H. BLANCHARD
A. CARTIER
JOS. DESGROSEILLIERS

Clerk and Treasurer, LS. ROD. VANNIER



Public School, Sturgeon Falls



Catholic Church, Sturgeon Falls

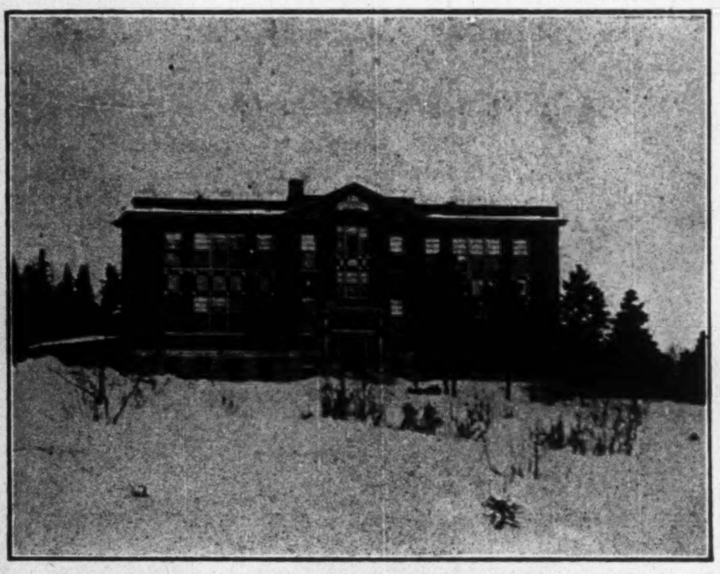
One of Sturgeon Falls' fine business blocks

The Mayor, Council and Board of Trade Present

THESSALON

North Western Ontario's DEEP WATER Town on Georgian Bay

The Gateway to the Mississaugi Forest Reserve. A Place of Marked Progressiveness offers Rare Opportunities for Business Men, Investors and Tourists



High School, Thessalon

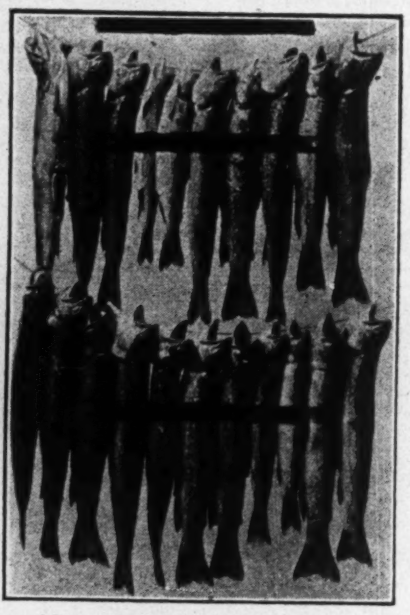
A Great Future in Prospect

The section about Thessalon is already noted for its splendid mixed farming and stock raising land. There has never been a complete crop failure in the section. While much has been done in the development of this industry, there is a wealth of splendid farm land yet available.

Thessalon, too, is noted for the industries directly and indirectly associated with lumbering. But while a great deal of development has occurred in this industry, also, it is only beginning to come into its own. The town is the doorway to the great Mississaugi Forest Reserve, one of the greatest timber preserves on the continent. Here are some stands of white pine in blocks that can hardly be equalled anywhere, while the whole section has hard timber resources, of almost unlimited extent, that are virtually untouched. Birch, maple and oak are here in enormous quantities, and with the gradual depletion of other sources of supply, this will quickly assume an added importance.

For a distance of approximately forty miles back from Thessalon there exists an area of Pre-Cambrian rock, the same formation that has made the great development of Sudbury, Cobalt and the Porcupine. Already there are proven mines, with copper ore in rich quantities, and the possibilities are only beginning to be realized. A railway line that will open up these resources will bring undreamed-of prosperity to this section.

There is on the Mississaugi River tremendous hydro electric resources that must of necessity soon be developed.



Afternoon Catch of Speckled Trout at Thessalon

A Home Town With Every Advantage

THESSALON is peculiarly favored in all those things that go to make a comfortable and attractive town. It is attractively located on the north shore of the Georgian Bay. It has a water and lighting system, with power to spare for its immediate needs. It has the best of sewerage systems and fire protection. It has an outstanding reputation for healthfulness, with a record of never having had an epidemic of any kind within its limits.

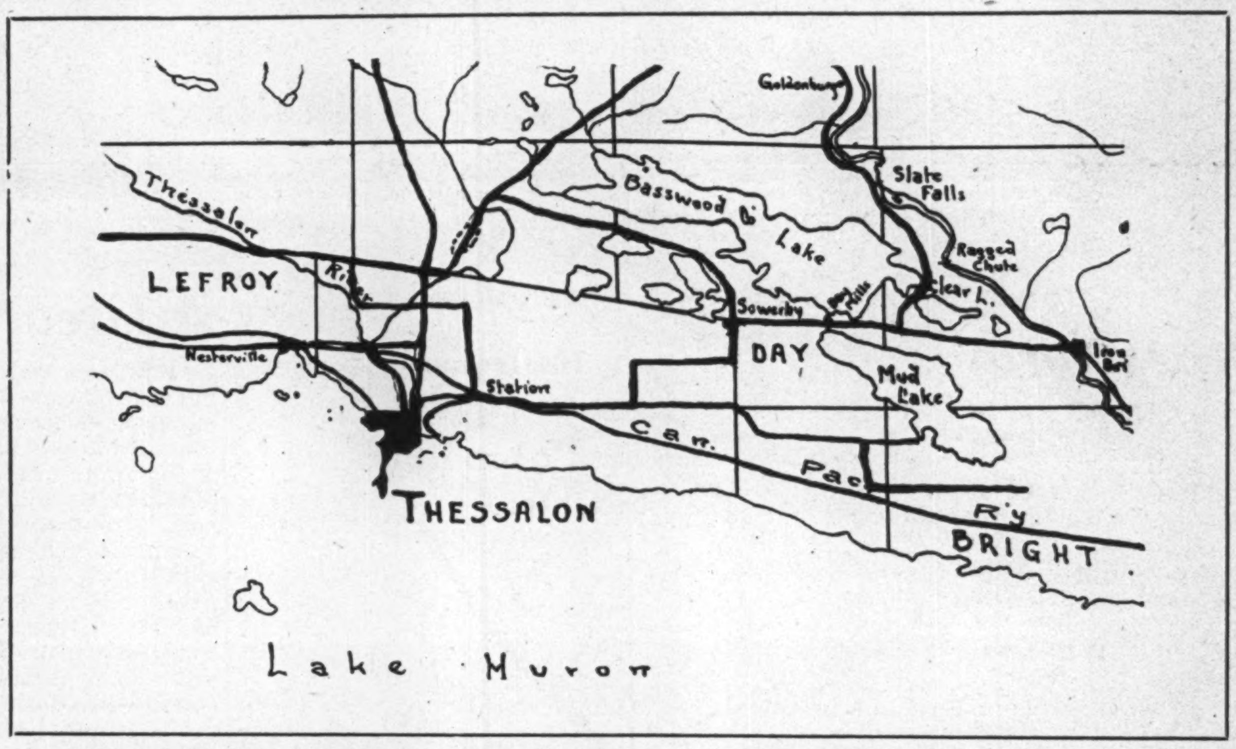
Thessalon is noted, too, as being the best educational centre between Sudbury and Sault Ste. Marie. It has kindergarten, public and high schools, equipped in the most modern way, and staffed with an exceptionally superior type of teachers.

A library, and four churches with splendid modern buildings add their advantages to a home town.

There are good banking facilities here. There are, also, three hotels that have a reputation for being among the best in the north country, so that travellers and visitors make it a point to stop here.

The district is served by a good weekly newspaper, the Algoma Advocate, which has served the district faithfully and well for the past thirty-five years.

In addition to these advantages the town has splendid roads and a natural park on the Great Northern Highway, that has brought many tourists, and has gained the reputation of being the best camping ground in the north country. There is a splendid beach, too, with ample bathing, boating and fishing facilities. In a word, it is a home town with every advantage of pleasure and comfort and security, and added to this a town of opportunity.



A New Mecca for Tourists and Sportsmen

Thessalon is already a town of some importance from a tourist viewpoint. It has unusual advantages for outdoor life near open water. Back of the town are innumerable small lakes, ideal locations for summer cottages.

Here the sportsman will find all that his heart desires. The waters are full of fish, trout, bass, maskinonge, pike, and pickerel. The waters have not been fished out, as they have been in some of the more settled vacation districts, and here the fisherman is assured of the best of sport.

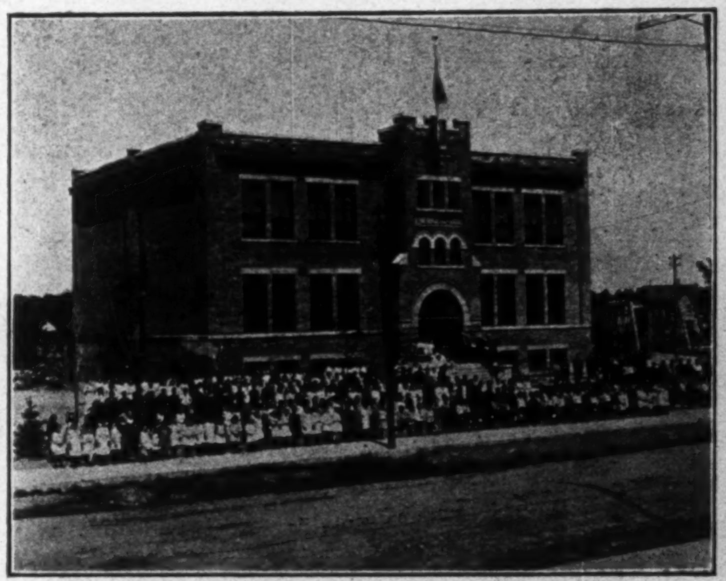
The woods abound in game, too; moose and deer and partridge and duck. All of which makes Thessalon the logical starting point for a vacation out of doors.

Industries We Have

Hope Lumber Co., C. N. Carney, Gen. Mgr.
Firstbrook Box Mfg. Co., Ltd., W. Benson, Manager.
Asam Basket & Veneer Factory, J. E. Asam, Manager and Proprietor.
Clinton Bros. Planing Mills, Theo. Clinton.
Teskey Foundry, Frank Teskey, Manager.
Bishop Lumber Co. (3 miles from town).
Belerose Bros., Fish Industry.
Capt. D. McKay, Fish Industry.
S. M. McGuire, Fish Industry.
A. A. Burk & Co., Machine Shop and Garage.
Mills & Clark, Machine Shop and Garage.

Industries We Want

Chemical Plant.
Pulp and Paper Plant.
Any kind of Hardwood Manufacturing.
Fibre or Beaver Board.
Hardwood Flooring Mill.
Woollen or Textile Industries.
Boat Building Industry.



Public School, Thessalon

Unexcelled Transportation Facilities on Deep Water

With the completion of the new government breakwater, Thessalon will have one of the finest harbors on the Lakes. It is an absolutely protected roadstead, with water deep enough to accommodate the largest boats on the lake close in shore. And there is no other possible port in the neighborhood. With the development of the mining and lumbering industry, these port facilities will be of vast importance.

Already there is a regular freight and passenger boat service between Owen Sound and Sault Ste. Marie, that makes this a port of call, and there is a daily service from the latter port.

There is also splendid railway service by the Canadian Pacific, and admirable roads, all of which lead directly to Thessalon, as the natural market town.

There is still more in prospect, however. Already the great expansion of the lumbering industry in the hinterland beyond Thessalon demands transportation facilities, and these cannot be long delayed. The natural course for such a railway would be along the Mississaugi River valley, with a logical terminus at Thessalon, to take advantage of the splendid shipping facilities. With the erection of such a railway, that is rapidly becoming a necessity, the tremendous potential resources in its already uncovered mineral resources would immediately leap into added importance and all this would be dispersed through Thessalon.

Shafts have been sunk on a number of properties, and assays have proven their real worth, and the mining industry in this section only awaits adequate transportation facilities to link up the mining section with the railway and the seaboard to give an impetus to further development. Thessalon's location is bound, in the next few years, to make it a place of unusual importance.

The Council and Board of Trade

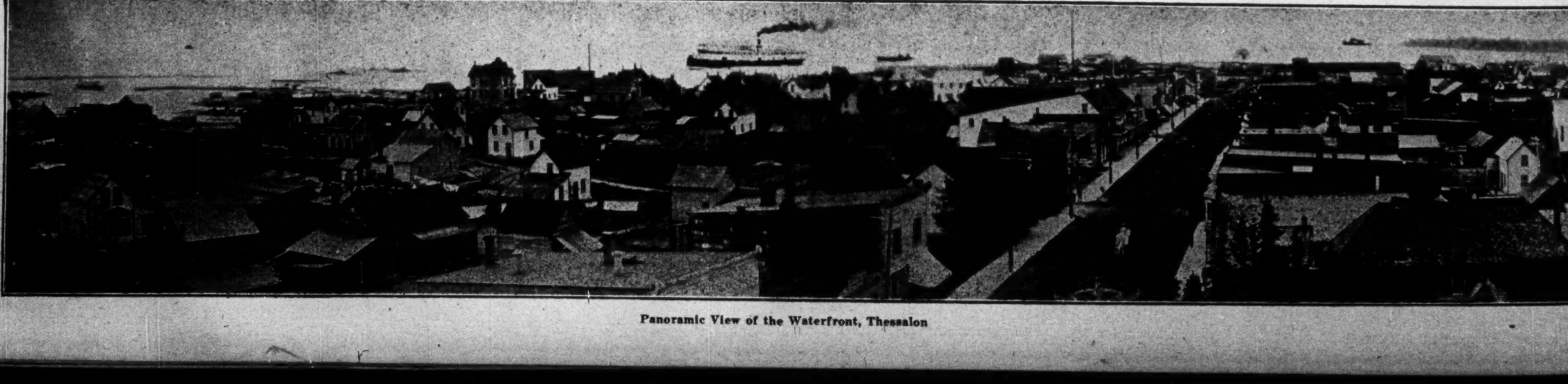
Mayor—ALFRED SHAW

Councillors:

J. F. CHISHOLM	S. S. BROWN
A. TAYLOR	R. BELEROSE
D. V. GANTON	J. O. COULTEN, Town Clerk
E. C. BRIDGE	

Board of Trade:

President—D. V. SANDIE
Director Iron Ore Association—J. S. DOBIE
Secretary-Treasurer—J. A. TOWN



Panoramic View of the Waterfront, Thessalon

U.S. COULD STOP IRON ORE SUPPLY OF THE DOMINION

Arguments Being Used Re Pulp and Paper May be Turned Round

PRICE WILL GO UP

Iron Ore Committee Sees Tense Situation Facing Steel Industry of Canada in the Future

There is a strong agitation afoot for an embargo on pulpwood from Canada to the United States. At the present time a commission is going from one end of the Dominion to the other holding an inquiry into the matter. The argument which is being advanced is that the raw material, the product of the development of our natural resources, should be kept at home for manufacture.

An iron ore enthusiast asks if the arguments, which are being applied to the pulp and paper industry of Canada to-day, could not be turned around and used in the United States in regard to iron ore. In this regard there are indications that the time is not very far distant when Canada will be unable to purchase any iron ore in the United States.

The great bulk of iron ore used in Canadian blast furnaces to-day comes from the United States, and the time is fast approaching when the available ore for export will be exhausted

Quite conservatively, the iron ore committee of the province of Ontario predicted that this condition might be expected within the next ten years.

THE FINANCIAL POST has reason to believe that the term is nearer five years than it is ten.

Briefly, here is the situation: It is believed that between 75 and 80 per cent. of the known deposits of hign-grade ore now being worked in the United States are in control of the United States Steel Company. Of the balance, about 15 per cent., is in control of other independent steel interests in the United States. The remaining five, or a little more, per cent. constitutes the free ore from which Canada draws her supply.

Price Will Soar

This free ore is rapidly being exhausted, and it is quite possible that the price of this free ore is going to soar.

The free ore supply in the United States is mined on a royalty basis As the royalty agreements expire, they are renewed at a higher rate. A second feature is the question of taxation. The Federal state and municipal taxation is based on the value of the deposit. The only way to reduce that taxation is to reduce the size of the deposit. Thus the faster the lessees mine their deposit, the greater will be their profit. That is what they are doing to-day, and that is why it is estimated that these deposits of free ore will be exhausted in nearer five years than ten.

The question has been asked whether or not the shrewd steel interests of the United States have not seen this condition coming for some considerable time. In some quarters the opinion has been held that the United States steel interests are, and have been, planning to capitalize the fact that this free ore would soon be exhausted, and going on the assumption that Canada would continue to follow the policy of allowing our resources to lie dormant. It is claimed in some quarters that this is the reason why the United States Steel is erecting a large plant at Ojibway near Windsor. This has been going on for a couple of years, and it is stated that the Steel Corporation is in no hurry, desiring only to have their plant completed at about the time that the available supply of free ore for export into Canada is exhausted.

Supply Will Diminish

It sounds logical, anyway.

Dealing with the exhaustion of the United States supply, the recent report of the Ontario committee states:

"It is apparent to those who study the situation, that although there may be enough ore in the United States Lake Superior iron ranges to maintain production at the present rate for at least thirty, and perhaps fifty, years, yet, it is so owned and controlled by those who require it for their own furnaces, that a very limited tonnage of free ore, or ore available to Ontario on the open market, remains. It is not possible to state exactly how long we can continue to secure our requirements, in the present day manner, for reasons stated. Nevertheless, one particularly well informed Ontario operator, whose experience extends from the beginning of steel manufacture in this province, expressed to the committee the considered opinion, that, to-day, there is not half as much free ore available for Ontario furnaces as there was five years ago."

Will Suffer Severely

Going on to discuss the future situation which will confront our steel industry in the Dominion, the committee's report states:

"The unanimous opinion of this committee is, that our iron and steel industry will suffer severely as the United States Lake Superior ore reserves, now being rapidly used, are conserved to a greater and greater extent for American furnaces; and that we must, during the next ten years, build up an iron mining industry that will largely free Ontario from the necessity of importing ore."

SHIP BRIQUETTES TO OTTAWA

A carload of briquettes made in a government plant in North Dakota from Saskatchewan lignite has been received in Ottawa and will be used by the Mines Branch for testing purposes. A large part of the carload will be tested on government furnaces. Supplies will also be given to a select list of householders who are interested in lignite as a partial solution of the fuel problems of central Canada.

Iron Ore Bounty Will Not Solve Canada's Problem Without Real Effort to Explore Vast Ranges

Systematic Effort Backed by Considerable Capital Necessary—Question is Asked, "Did Glaciers Know Where International Boundary Was Going to be?" in Answer to Contention That There is no High Grade Iron Ore in the Dominion.

Canada is in a lamentable position to-day in regard to the production of iron and steel products. Practically all her iron ore is being imported from the United States. In round figures ten million dollars leaves the country annually. Facing such a handicap, the steel industry is retarded, the railways lose a tremendous revenue, while the loss in labor, because this ore is not produced in Canada, is great. In another section of this issue, figures on just what the situation is as it applies to Canada's trade balance with the United States are clearly set forth.

The iron ore possibilities of Canada, and especially the Lake Superior section of Northen Ontario are clearly set forth in the following article. There is a mass of geology, perhaps it's a little heavy, but it can be fairly well grasped by careful reading. Its importance to Canadian progress is immediately apparent, likewise the opportunities it presents to capital. A bounty is proposed to aid the development of Canadian ores. But the bounty, if approved, won't find the ore. Some organization or group must undertake the exploration of the Canadian ranges. Time and money will be involved.

Exploration to date has not been definite. It has been too limited, too cursory. Many contend that Canada has no high grade ranges, or shipping grades. Others contend such an assumption to be the height of absurdity, especially when not a drill hole has been put down in the 20 to 50 central miles of the range which carries that iron formation. As the writer of the following article or digest recently said, "Certainly the glacial currents did not know anything about where the international boundary was going to be fixed." This was in arguing that Canada has just as much chance of finding high grade iron ore as that being mined across the line.

Dwight C. Woodbridge, American Ore Corpn., Duluth, Minn., a leading authority on the United States ranges, has made some comments on the article below. They follow the article. It should be pointed out that the digest, though prepared by a leading Canadian, uses the United States nomenclature in describing and identifying the different series of rocks, Canadian geologists use slightly different terms. The explanation is that most of the data is from United States reports which are more complete than are the Canadian.—Ed.

By W. A. DOWLER, K.C.

From United States territory bordering on Lake Superior comes nearly 90 per cent. of the iron ore used in the United States, and practically all used in Canada outside of Nova Scotia, in other words, around 60,000,000 tons annually.

From Canadian territory bordering on Lake Superior not a ton is at present coming.

The geological phenomena in the territory bordering Lake Superior in one country are very nearly the parallel of those in the other country.

Proceeding from Lake Superior inland similar geological phenomena are noted, and formations crossed whether you proceed through United States or Canadian territory. There are no greater differences between the two territories than between different parts of the United States or Canadian territory.

In some places rocks of more recent geological systems are in evidence, but in the main, the first met belong to the series in the Algonkin System, called in the geological literature relating to the area, the Keweenawan Series.

This Keweenawan series consists for the most part of conglomerates, sandstones, marls and intrusive granites, gabbros and diabase, the most marked single feature probably being the very extensive over-run of gabbro along the Minnesota shore known as Duluth Gabbro.

Next in order, working back from Lake Superior, appear rocks of the Upper Huronian series, the Animikie group, the group name simply identifying the Lake Superior sector of the upper Huronian Series.

This Animikie group in a general way consists of the following classes appearing in about the following general order from top to bottom: (1) acidic and basic intrusive rocks, (2) slates, (3) iron formation, (4) quartzite, (subject to irregularly placed and non-conforming lava flows and basic intrusions).

Next in order is met the Middle-Lower Huronian series. The rocks in this series consist of approximately the following classes appearing in about the following order: (1) iron formation, (2) granites, granatoid gneiss and other intrusive rocks, (3) slates gray wackes, (4) conglomerates—slates—dolomites.

Then follows still working back from Lake Superior, the Archean or oldest system made up first of the Laurentian series, then of the Keewatin series.

The Laurentian series consists of approximately the following rocks appearing in about the following order: (1) granites and other intrusive rocks, (2) iron formation; the Keewatin of the following rocks in about the following order, (1) iron formation, (2) greenstones, called in sole geological works Ely greenstone, and (3) green schists with iron formation.

The casual observer will not note these gradations as he progresses inland from the lake, but the data collected by different geologists establish the above general facts, and their application to practically the whole Lake Superior territory, to that portion in Canada as well as the portion in the United States. All the several series of rocks mentioned belong to the Pre-Cambrian period. Rocks of the more recent Cambrian period are in evidence in places as stated at the outset, but have no bearing on the matters dealt with in this digest. One of the features to be noticed in the previous resume of the rocks met in the territory surrounding Lake Superior, is that each successive series, following the Keewanawan Series, carries an iron bearing member, that is to say, an iron bearing member, horizon set of strata is found in some places in each of the following series: Upper Huronian (Animikie) Middle Huronian, Lower Huronian, Laurentian and Keewatin.

Canadian Data Scarce

The relative importance of the iron bearing member in the different series mentioned can be approximately arrived at in the United States territory from the geological and production records of the producing mines in this territory; as there has been very little intensive geological exploration, and there are no producing mines in Canadian territory, no real knowledge exists as to the relative importance of the iron bearing members in these different series in Canadian territory. An analysis of the geological records of the producing districts in United States territory shows that the iron-bearing and iron-ore-producing member appears in the Upper Huronian (Animikie) Series in the following ranges or districts, starting at the Southeast and working Westward:

In the Menominee district (Michigan-Wisconsin) underneath a slaty horizon also containing iron bearing beds.

In the Penokee-Gogebic district (Michigan-Wisconsin) also underneath a horizon of slate.

In the Mesabe district (Minnesota) underneath a horizon of slate with intrusive sills of diabase.

In the Cuyuna district (Minnesota) underneath an horizon of slate with small amounts of gray wacke quartzite and limestone interbedded with the slate.

In the Marquette district (Michigan) there is in the Upper Huronian (Animikie) series an iron bearing member under a horizon of slate with a quartzite member underneath, but the more valuable iron bearing and iron ore producing horizon constitutes the upper section of the Middle Huronian series.

In the Vermillion district (Minnesota) there is an iron bearing member in the Upper Huronian (Animikie) series, but the really valuable iron ore producing member lies in the Keewatin series under the Laurentian granite (granite of Basswood Lake) and over the Keewatin (Ely) greenstone.

Sub-districts of minor present importance in the Michigan-Wisconsin sector show an iron bearing member some place in each series.

The following production records of the producing mines in the several districts for 1920 exhibit the relative production of the several districts for that year, and, incidentally, the relative production of the several series:

	Upper Huronian Series (Animikie) Tons	All other Series Tons
Marquette district (Michigan)	......	4,457,000
Menominee (Michigan-Wisconsin)	5,631,542	......
Penokee-Gogebic (Michigan-Wisconsin)	8,298,206	......
Vermillion (Minnesota)	......	1,053,581
Mesabe (Minnesota)	36,641,580	......
Cuyuna (Minnesota)	1,757,775	......
	52,849,103	5,510,581
	5,510,581	
Total	57,859,684	

This total from the Lake Superior districts, compared with the total of 67,604,465 for 1920 from the whole United States, shows the importance of these districts in relation to all other districts in the United States.

Turning now to what is known of the non-producing and slightly explored territory on the Canadian side. It has been recognized by the most eminent U. S. geologists, since 1911, that a sector of the Upper Huronian (Animikie) Series extends around the West-Northwest shore of Lake Superior, from Minnesota to Loon Lake, a distance of approximately 120 miles, and that in this sector there exists an iron-bearing member. It is known that behind this upper Huronian sector, in the different older series, there are outcroppings of an iron-bearing member, proceeding from west to east; in the Hunter's Island and Rainy Lake district; in the steep Rock Lake and Atikokan district; in the Shenandowan Lake, Mattawan and Conmee Township district, and in the Nipigon district; that behind these outcroppings, and still farther inland are other outcroppings of iron-bearing members.

It is also known that around on the east side of Lake Superior, in the older series of rocks, there are iron-bearing, and there have been instances of iron-ore-producing members, as, for instance, in the Michipicoten district.

Closely Parallels U. S.

There is, therefore, on the Canadian side a general geological situation which closely parallels that on the U. S. side, and a still larger area showing at the surface the existence of iron-bearing members in the different series of rocks previously referred to, than on the United States side.

Iron-ore-producing beds have not yet been located in all the iron-bearing members in the different series on the U. S. side, and the bodies of merchantable ore now being worked were not located in the iron-bearing members in which they were secreted

(Continued on page 36)

IRON BOUNTY WILL NOT INJURE BESCO MARKETS IN LEAST

Maritime Enterprise Will Not Suffer by New Development

MARKET SECURE

Eastern Enterprise Gets Ore From Newfoundland and Has Shipped Considerable to Germany

From Our Own Correspondent.

SYDNEY.—Although officials of British Empire Steel Corporation are naturally curious to learn whether the proposed bounty on iron ore will affect its avowed purpose of reviving the iron mining industry of Upper Canada, their interest in the matter is purely professional. The bounty, it is learned here, will not affect the steel industry of the East in any manner whatever.

At the present time, Besco not only gets all the ore it needs for its own mills from the Wabana pits on Bell Island, Newfoundland, but it is also able at very short notice to supply and ship enormous quantities of this product to plants in any part of the world. In 1922, for instance, over 800,000 tons of iron ore were shipped from Wabana to Germany alone. This business has since largely fallen off on account of the French occupation of the Ruhr.

"Would it be possible that the bounty, by making Upper Canada steel cheaper, might cut into the Besco Markets?" an official of the corporation was asked.

"Not at all," was the reply. "Our markets are secure, or at least they are secure enough to withstand any competition which might arise from the adoption of this bounty. We do not anticipate that the resumption of iron mining in Ontario will have the slightest effect upon Besco, either in its ore trade or its manufactured steel and steel products."

According to this authority, there has been no iron mined in Canada proper for some time, the last active iron mine to produce being the Helen owned by an Ontario steel concern.

MARITIMES PRODUCE 39 PER CENT. OF THE COAL OF DOMINION

Yet Area Has But One Per Cent. of the Coal in Canada

By JOHN McLEIGH,
Director Mines Branch, Ottawa.

Less than one per cent. of Canada's total coal resources are found in her eastern coal fields in the provinces of Nova Scotia and New Brunswick, all of the rest being west of Winnipeg. Nevertheless the collieries of Cape Breton were among the first worked on the American continent and during 1922 the eastern fields produced 39 per cent of the total Canadian output. Mining operations are known to have been in progress since 1785 and indeed many of the difficulties now encountered in this field are due to the early attempts at mining when the main object was an immediate output of fuel at lowest possible cost and little consideration was given to the future possibilities of undersea mining at long distances from shore shafts.

The coal which is bituminous in character and of varying quality, is mined in five areas, or fields, usually referred to as the Sydney and Inverness fields in Cape Breton, the Pictou and Cumberland fields in Nova Scotia proper, and the Minto field in New Brunswick. The Sydney field is the most extensive and is credited with about 78 per cent. of the total available coal in the two eastern provinces. The Cumberland and Pictou fields possess a little less than 10 and 9 per cent. respectively of the total; the Inverness field about 2½ per cent; and the New Brunswick field about 1½ per cent.

In 1913, the two provinces produced a total of 8,050,000 short tons and in 1922 only 5,850,000 tons. The relative amounts produced from the several fields last year were: Sydney field 70 per cent.; Cumberland 11.8 per cent.; Pictou 9.7 per cent.; Inverness 3.4 per cent. and Minto 4.9 per cent. The output is used largely for locomotive fuel and for bunkering ships. It is used by industrial power plants in Eastern Canada and for the manufacture of coke to supply the iron and steel furnaces at Sydney. It is also used to a large extent as a domestic fuel throughout the Maritime Provinces. For domestic use the output of particular mines and selected seams is employed, but even at that many consumers in the cities of Halifax and St. John and at other points prefer to pay a much higher price for Pennsylvania, or Welsh anthracite. Much of the Nova Scotia coal is high in sulphur and for the manufacture of metallurgical coke a careful selection of the coal is necessary. The coal so used is further washed to reduce its ash and sulphur content. In 1914 over 2,600,000 tons of Nova Scotia coal were marketed in the province of Quebec. During the war this market was almost entirely lost but by 1922 had been regained to the extent of about 50 per cent.

Production during the first six months of 1923 showed a decided improvement over the corresponding period of 1922 with an increased production of over a million tons and with largely increased shipments to the Montreal market contracted for.

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After being proved, the properties will be sold to capitalists and syndicate members will share proportionately in the profits.
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B.C. IRON RANGES HAVE ATTRACTED MUCH INTEREST

Bounty Would Likely Help Development in Many Districts

From Our Own Correspondent.

NELSON.—The proposal to the Dominion government that a bounty be established on iron ore has aroused a great deal of interest not only in this immediate vicinity but throughout the whole Kootenay.

There are in this district many large iron ore deposits, especially at Kitchener, Creston, Crawford Bay, Bull River, Galloway, Salmon River, and at Beasley, within seven miles of Nelson.

The iron ore areas at Kitchener and Creston are very large, and at one time the late Lord Shaughnessy was very much interested in them. Dominion geologists were active there last summer.

English engineers have examined the deposits at the Salmon River, and have pronounced favorably upon them. Red Ametite has been found at Bull River.

The properties at Creston, Kitchener and Galloway are all fairly close to the Crow's Nest coal fields, while many of the deposits are within distance that would make available electric power from the two big plants in the district—that of the city of Nelson, and of the West Kootenay Power and Light Company, both located at Bonnington Falls, a few miles from Nelson.

The bounty proposal has created so much interest in Kootenay mining circles that it is likely the annual convention of the Associated Boards of Trade of Eastern British Columbia, which is to be held in this city on Feb. 26-27, will consider the matter and perhaps adopt a resolution in approval.

U. S. Railways Benefit From Iron Industry

The mining industry in the United States provides 52 per cent. of the tonnage carried by Class One railways. Total tons for 1921 were 1,691,617,051, of which mines provided 878,645,798. Of the latter figure, iron ore provided 48,453,203 tons, while the tonnage of articles manufactured from iron ore was as follows:

Iron, pig, bloom	10,327,601
Rails, etc.	5,117,193
Bar, sheet, pipe and struct.	30,099,023
Other metals, pig bar sheet	5,668,383
Castings, mach. and boilers	3,687,866

Sault Ste. Marie

ONTARIO

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Board of Trade
SAULT STE. MARIE, ONTARIO

CANADA MAY YET SHIP IRON ORE TO PLANTS OF STATES

If Production Costs Gradually Lowered This Prospect Will be Helped

FAVORABLE FACTORS

High Taxes and Bounty on U.S. Ores a Handicap but Offset So Long as High Grade Continues

There are optimists who can see the time when Ontario will be a heavy shipper of iron ore to the United States, especially to the great steel industry of South Chicago. They admit it will take time. They admit that there are many difficulties to overcome, but they look to a development which will come once the iron industry of Ontario is on a proper basis.

In reviewing the situation one finds that these optimists are not stretching things too far at that. Amidst the unfavorable situation in which our iron and steel industry is in to-day there are many favorable factors which would materially help once the production of iron ore is under way.

Two very unfavorable factors in the production of iron ore in the Lake Superior region of the United States are the royalties which must be paid, and high taxation.

For 1923, the royalty on ores produced in the United States was 61 cents a ton. This year the agreement has to be renewed, and it is understood that the royalty has been materially increased.

Taxation on iron ore mines of the United States, Federal, state, and municipal taxation, is based on the amount of ore produced from year to year. In a year of great activities the tax per ton is fairly low; in a quiet year the exact opposite is a fact. In 1912 the tax was little better than 7½c. per ton; the five-year average from 1912-1922 was 8¾ cents, but in 1922 the taxes rose up to 41 cents per ton. The royalty and taxes added together make a total of $1.02, with which the iron industry of Ontario would not be burdened.

Ontario Taxation

Taxation on iron ore properties in Ontario would be based on profits the same as in the nickel, gold and silver mines; no royalty would be collected.

The iron ore committee of Ontario estimated that the difference between the average United States mining costs of natural ores, and the cost of mining Magpie ores to produce one ton of finished product, shows 89 cents per ton in favor of the United States. Helen mine costs they expect will be somewhat reduced, and estimate the difference at 66 cents.

The Canadian ores face the additional cost of sifting at $1.25. Thus the excess cost of producing at the Helen Mine would be $1.91, and this would be offset by the saving of $1.02, as referred to above, showing a net advantage to the United States mines of 89 cents per ton. That is while the United States continue to mine high-grade by steam shovels and does not have to sinter its ore.

The committee goes on then to state that the average profit of the producers of Lake Superior was approximately 80 cents a ton. This would mean a loss of 9 cents per ton if produced at the Helen mines. On the other hand, it is also pointed out that the sinter produced at the Helen would grade fairly high and command a price on the open market slightly better than the average.

The committee expressed its optimism, however, in regard to the situation in the following manner:

> "In the early stages of development the cost of production will slightly exceed the price of their product, but as the mine is developed and the markets settled, permitting increased production, the cost will be gradually decreased and in a few years it should be permanently settled on a commercial basis."

The opinion is expressed by the committee that some of the higher grade magnetites, over 50 per cent. iron, natural and siderites such as are found in the New Helen, can produce to-day at a cost about equal to their market value.

Another very important factor which will enter into the possibility of Ontario ore competing with the iron ore of the United States in their own market is the fact that the high-grade deposits of the West are already showing signs of becoming depleted. The result is that we find the United States beginning to look around for some beneficiating method of handling their low-grade products. The Mesabi Iron Co. is erecting a large sintering plant, so that from now on beneficiated or sintered ore is going to gradually increase in usage.

Power Cost Important

Still another factor is the cost of electric energy. The energy used by the iron companies in the United States is all produced from coal and costs around $100 per h.p. In the Algoma district, and also around the head of the lakes, there is a plentiful supply of electrical energy.

The committee also sees the possibility of some magnetites, high in sulphur, but high also in iron, and requiring only treating to make them suitable for the blast furnace. These may be produced at a lower cost, but it is available. This can be secured at some 20 to 25 dollars per h.p. Then, again, most of the iron ore deposits of Northern Ontario are quite close to water transportation. We have encountered iron ore enthusiasts who have gone into the matter to express the firm conviction that if we get the iron ore production we can ship ore into the great steel industry in South Chicago at a much lower rate than the iron ores of the United States can be shipped into the same market.

Provincial Aid Should Not Rest on Federal Leaders Joining in

While it is quite right for the Provincial Government to try to enlist the active sympathy of the Federal Government in the development of iron mining in Canada generally and this Province in particular, aid should not be contingent upon help from Ottawa.

That country which possesses important deposits of iron ore and utilizes the same in its industries cannot but become permanently prosperous. History reveals many cases in which nations have built their wealth upon the making of iron and steel. Nor does wealth thus created return profits to the individuals, but to Governments as well. Great Britain's greatness in manufactures was founded upon her iron and coal mines. Germany and France are other instances of greatness in industry being dug from the ground. The United States is an outstanding example of what can be accomplished by a nation in manufacture through the possession and operation of iron mines.

Canada has mistakenly depended upon agriculture for its wealth, and too often agriculture has failed to respond. No pastoral country ever became wealthy or afforded its people comforts and the means of enjoying a high standard of civilization. Agriculture has formed and will always form one of our great basic industries. But Canada possesses dormant wealth in her mineral lands, that are probably unequalled by any other country. To her mines and mineral deposits Canada should look for her future greatness. While the range of minerals is wide, the iron ores are among the most important. Ontario is blessed above measure with iron ores. But in order to bring these ores into use it is necessary that the government should render moderate aid to the pioneers to enable them to place their ores in the market at a price and grade that will compete with foreign ores now used by furnaces.

Canada imports upwards of $200,000,000 worth of iron and steel products annually. If even a quarter of this amount could be saved to the country employment for capital and labor would be materially increased and instead of importing it would not be many years before Canada would figure in the exporting column.

While it is right that Premier Ferguson should endeavor to procure Federal assistance and thus induce other provincial governments to help create a new industry, it is to be hoped that he will not make provincial aid contingent upon the action of the Dominion government.—Port Arthur News Chronicle.

EXPECT BOUNTY TO ATTRACT NEW FUNDS

British Columbia Asks Federal House to Put Up Additional $2,000,000

British Columbia is looking to the federal government to match its $2,000,000 bounty payments, making $4,000,000. They expect the bounty will attract English capital. Discussing this phase recently the minister of mines, Hon. W. Sloan, said:

"If the Dominion government should accede to our request and provide for a bounty on the same basis as we are considering—and there is no reason why they should not—it would mean an aggregate amount to be paid in Canada on behalf of this industry of $4,000,000. We have been given to understand that there is a bona fide desire on the part of British capitalists to come to this province to enter upon this enterprise, bringing their capital and their experience to bear upon the problems of initiating and carrying the industry to a successful issue. As I have said we sincerely hope that they will do so, I am satisfied that such an offer in the way of bounty payments on production should be of interest to them."

ONLY REASON ONTARIO HAS NOT PRODUCED GREAT TONNAGES OF MERCHANTABLE GRADE ORE IS THAT WE NEVER EXPLORED FOR THEM

This is Conclusion Reached by Twin Cities Authority Who Has Covered Most of the Ranges on the North—Shows How Great Producing Ranges of U. S. Come Right up to Canadian Boundary.

The following article by J. E. Marks, Port Arthur, supports the contention repeatedly made by THE FINANCIAL POST that the only reason Canada, and Ontario in particular, is not producing high grade iron ore is that we have never carried on any systematic exploration to find such ore. Mr. Marks has covered the iron ranges of Northern Ontario thoroughly. He is convinced that high grade ore will be found. He can see opportunities for a great, flourishing industry.

By J. E. MARKS

From west to east the following more important ranges occur tributary to the head of Lake Superior in the Thunder Bay and Rainy River districts. On the North, Steep Rock Lake, Atikokan, Mattawan, Kaministiquia, Lake Nipigon, and Little Long Lake iron ranges. On the south, Hunter's Island, and the Canadian Mesaba at North Lake, White Fish Lake and the Loon Lake areas, with the unknown extensions between these different points. Less explored and further from transportation, are the Little Pine Lake and Onnaman Lake ranges.

Age of the ranges, Vermillion, or old range; Middle Huronian, and Upper Huronian or Mesaba.

Hunter's Island Iron Ranges

Hunter's Island range is the extension of the Minnesota Tower and Ely range, (Vermillion), which here crosses the International boundary into Canadian territory, and continues through the whole length of the island, thence up the valley of the Crooked River to the Shebandowan Lake and Greenwater Lake areas, where it is known as the western extension of the Mattawan-Kaministiquia Range. A small series of troughs of the Middle Huronian iron range is also found in Hunter's Island, but no extensive system of exploration has been carried on in this area.

Canadian Mesaba (Upper Huronian)

The Canadian Mesaba is identical with the Minnesota Mesaba range, in which the ore occurs as a magnetite near the Minnesota boundary within Canadian territory. A short distance east from the international boundary the magnetite disappears and is replaced by hematite ores similar to the Minnesota-Mesaba hematites. Practically no work has been done on this section of the range with the exception of an area about 45 miles from lake shipping near Sand Lake on the Canadian National Railway, where the owners report having located huge tonnages of iron formation containing layers of both lean and high grade ores with intervening layers of taconite, but not sufficient work has been done to demonstrate whether they have heavy tonnages of merchantable grades of ore or not. From this point on the Canadian Mesaba to the Loon Lake area, 25 miles east of Port Arthur, practically nothing has been done in the way of exploration. Loon Lake area has had a number of shallow drill tests as well as shallow shafting and test-pitting, with the result that the owners claim reserves of 25 million tons in this section, a portion of which could be made suitable for shipping with a little hand-sorting. But the greater tonnage would naturally mean more expensive sorting or beneficiating by means of some other plan of raising the grade.

Atikokan-Steep Rock Lake (Vermillion)

On the Canadian National Railway, from 125 to 150 miles from Port Arthur, (the old Canadian Northern Line), is the Atikokan iron range, which is a series of long narrow troughs which reach to a very considerable depth, and which have proven to be very prolific in ore, running high in iron content, but, generally speaking, with sufficient sulphur content to make a process of roasting necessary to meet the requirements of common furnace practice. On this range is situated the Atikokan Iron Company's mine, for which they claim reserves of ten million tons (10,000,000) averaging 55 per cent. in iron. 2 to 5 per cent. sulphur, and .10 phosphorus. All the Atikokan Iron Co.'s ore which has been shipped to date. 86.433 tons, averaging 59.85 per cent in iron, is a magnetite, with the exception of a small tonnage of linonite which was found during the exploration of the magnetites. West of Sebawa Lake on the same range from Mileage 132 to 136 a very considerable amount of diamond drill work was done by the United States Steel Corporation, and at the three points on the range drilled, total reserves are claimed of 15 million tons, averaging 55 per cent. in iron, from 2 to 13 per cent. sulphur, .03 per cent. in phosphorus. Approximately 50,000 feet of diamond drilling was done in this vicinity, which is really the only systematic exploration which has been done on the old ranges in the Thunder Bay or Rainy River districts.

Trial Shipments

A shipment of 400 tons of ore for an extensive test was made by the United States Steel Corporation from the Atikokan range, which gave, after roasting in Wedge furnaces, a very attractive product.

The analysis of the ore before treatment:

59.34%	Iron
.02%	Phos.
2.05%	Silica
21.44%	Sulphur

After roasting, the following product:

65.53%	Iron
.02%	Phos.
3.44%	Silica
.59%	Sulphur

This test was made from the ores carrying the highest sulphur content on the range. while there is a very considerable tonnage that will run 2 per cent. in sulphur in the reserves of this range.

The Steep Rock Lake range, which is the thickest and most extensive in that district, is essentially the same age as the Atikokan iron range (Vermillion) only differing in that all the ores that have been found are a hematite.

The Great Steep Rock Basin covers an area of 25 square miles, and has at least 8 or 10 very extensive parallel troughs which must, as shown by the structure, go to a very great depth. The greatest single thickness found of the iron formation was over 1,000 feet on the south side of a syncline which was three-quarters of a mile across.

The structural geology of the Straw Hat Lake trough in this basin I have classified as follows:

1. The basement complex consisting of Granite and Gneisses with some Keewatin Greenstones.
2. The Steep Rock series.

The Steep Rock series I have divided as follows, in ascending sequence:

1. Conglomerate.
2. Iron formation.
3. Ash Rock (lower Huronian conglomerate.)
4. Green Stones; Green Stone Schists.
5. Agglomerates.
6. Dark Gey Clay Slate.

and having in all a maximum thickness of about 5,000 feet, dipping at angles about 80 degrees to 85 degrees.

A small amount of drilling was done under option, on the Straw Hat Lake trough, by the United States Steel Corporation. No definite information was given as to the results but it is commonly reported that a very considerable amount of hematite ore was located, and as this corporation still retains this block of about 500 acres under lease, and have carried this for about twenty years, it is reasonable to suppose that the proposition was well worth retaining. Not even a detail survey has been made of the remainder of the great basin.

Mattewan-Kaministiquia Ranges (Vermillion)

The Mattewan-Kaministiquia ranges are within a distance of from twenty-five to fifty miles of lake shipping on the C. N. R. This range has a great thickness of iron formation, chiefly hematite, with bands of jasper and cherts, and should be considered as being of importance as offering a favorable field for exploration for ores of straight shipping grade as well as having great tonnages of banded ores of good grades that could be easily and cheaply concentrated into a product that would meet the requirements of the modern blast furnace. A small amount of drill work, test-pitting, etc., has been done by various syndicates, but this without a careful survey of the ranges, to determine the most favorable places for concentrations of ores that would be high in iron. However, a very great tonnage roughly estimated at about two hundred million tons (banded jasper and good grade iron), has been located. which would be practically all open cut work and of a physical structure that would make these deposits easily amenable to concentration by eliminating the excessive cost of fine grinding, confining the operation entirely to ores, of which the greater amount would only be broken to from one inch to quarter-inch mesh, and none of it ground finer than 50 mesh. In addition to these ores mentioned there are very great tonnages of low-grade hematites 35 to 40 per cent. in iron that might be either utilized as mixing ore or would be ground finer if concentrated by some other plan.

Results of Test

A test of these banded ores of several hundred pounds was made by the writer several years ago at Federal Mines Dept., Ottawa, which have the following results:

Analysis of crude ore .	37.19 Fe.
Ratio of concentration	½
Analysis produce	53.25 Fe.

A number of hand tests gave an aevrage of 52.96 Fe.; .09 phos., and .08 sulphur, from crude ore averaging 33.61 Fe. This was a banded magnetite-hematite. This ore shows by analysis as follows:

Total iron	37.19
Hematite	Fe.. [illegible]
Magnetite	Fe.. [illegible]

This sample was broken to ¼ inch only, with jig and water separation.

When we consider that we cannot deep mine and grind to 150 or 200 mesh for concentration purposes, as well as considering the great difficulty in getting together such a huge operation as the Babbit concentrating plant, the advantage of having great tonnages of ores easily made merchantable, within such a short distance of lake shipping, is obvious.

Nipigon Iron Ranges (Vermillion)

The greatest exposures of iron formation found east of Lake Nipigon are in the Poplar Lodge Trough, which has a maximum width of over 3,000 feet and length of about 3 miles. A small amount of drilling was done on this range, but the operators seem to have confined themselves to following up belts of low-grade iron (35 to 40 per cent,) rather than make a careful survey of the range in an endeavor to locate merchantable grades of ore of which there was every indication. Some exploration was carried on east of the Poplar Lodge Trough, and a number of belts of iron formation located, which in common with the Poplar Lodge Trough are all hematite and extended as far east as Little Long Lake, a total distance of about 40 miles.

Thunder Bay Area

Little Pine Lake and Onnamon River (Vermillion):—A small amount of exploration was done on these ranges, which carry both magnetites and hematites, but the transportation difficulties were the chief cause of exploration ceasing on these areas.

Michipocoten-Algoma

Helen, Magpie and Josephine Mines (Vermillion):—The Helen Mine shipped about 3½ million tons of hematite ore, averaging about 55 per cent. in iron. This depleted their merchantable ores, but they have reserves approximating 100 million tons of high-grade siderite running about 35 per cent. in iron contents, which, when calcined, made a product of about 51½ iron content, .02 phos.

The Magpie had very considerable reserves of a siderite similar in grade to the Helen mine, which has been largely mined. beneficiated and shipped, meeting with a reasonably ready sale as blending ore, as well as furnishing about 40 per cent. of the raw material for the smelters of the Lake Superior Corporation at Sault Ste. Marie, Ontario.

The Josephine has drilled reserves of 2,225,000 tons, acording to government reports, of merchantable grade of hematite.

North of the C. P. R. and east of the Michipicoten are the Ridout River. Woman River, and the Biscotasing ranges (Vermillion). The two former are entirely unexplored, but some diamond drill work was done north of Bisco on the Canadian Pacific, and heavy tonnages, running over 50 per cent., or over, in iron content, are reported to have been found, but carrying too much sulphur to admit of this being placed in the open market. The Moose Mountain Mine, in the Sudbury district, is credited with reserves of 100,000,000 tons of ore, running 35 per cent. in iron, and this company has made extensive experiments in concentrating, and produced a high-grade product.

Great Prospects

On my own explorations, which extend over a period of nearly twenty-five years, and which was given almost exclusively to the study of the Canadian iron ranges, I have examined personally over one thousand lineal miles of iron ranges in North-Western Ontario alone, independent of the Michipicoten and Moose Mountain ranges, all within rail haulage distance of lake freighting, as well as being conveniently near existing railway lines.

I know of the whereabouts of another thousand miles that would be considered as future reserves of the Dominion, but are at present too distant from railway or lake transportation to be made available. We will probably find another thousand miles in the great unexplored territory.

In the whole of these explorations, while I have found but few large outcroppings of shipping ore, and I would point to similar conditions at Tower and Ely, Minnesota, I would consider that in the first thousand miles of ranges mentioned there are at least one hundred lineal miles which are worthy of being given the much close examination that would precede diamond drilling with the reasonable expectation of finding ores of straight shipping grade.

Central Quebec

In addition to the ranges mentioned the writer found in Central Quebec, about 52.30 N. Latitude and 69 W. Longitude, hard, red, hematite ores (Vermillion) that would assay 65 per cent. iron content. Some of these ores also carried 4 to 5 per cent manganese. These ranges have never been explored, but appeared to be quite extensive.

On the Hudson Bay Slopes are hundreds of square miles of the Canadian Mesaba which must have somewhere in this area great deposits of good grade iron similar to the Minnesota deposits, to say nothing of the enormous tonnages of low-grade ores.

The Quebec ranges mentioned, however, are too distant from any transportation to be considered to be more than the great future reserves of the Dominion.

Several years ago, the writer had occasion to make a detailed geological, structural and magnetic survey of a part of one of the largest iron-bearing troughs in this district. Only one side of the syncline was taken into consideration, and careful magnetic readings were taken for correlation purposes, over actual outcroppings of all the different grades of iron formation found. The more prolific areas showed principally soft cherts and carbonates, with abundant bunches and irregular bands of good grade hematites.

Never Explored Them

The area surveyed was 16,200 feet long by about 1,500 feet wide, and a plan showing all the data compiled, in all 3,500 magnetic readings, were taken and noted.

The result showed that the more prolific iron formation extended over a distance of 9,800 feet of the 16,200, with a minimum width of 250 feet, and a maximum of 500 feet.

Taking this description of our ranges and the results of the detail survey mentioned, a summary would simply show, that the only reason why Ontario has not produced great tonnages of merchantable grade of ore is that we have never explored for them.

In the New York Mining Engineering Journal, dated June 22. 1916, they published an estimate of the iron ore reserves in the world. This statement gave Canada as follows:

"Not estimated, scattered and relatively small."

Is not this a spendid advertisement for our iron ore resources? And many of our Canadian engineers and geologists seem to be imbued with the same idea.

What Bounty Costs

Until the advent of the deep water ways, which will bring Manitoba one thousand miles nearer to the sea, we cannot hope to furnish the coast provinces with their needed blending ores, so Ontario would first supply her own requirements, which are annually about 750,000 tons. This would mean to get the necessary grades a production of about 2,000,000 tons, having a market value of about $12,000,000. Our surplus we would of course export, and we would retain and spend in our own province over $11,000,000 of the market value.

If the province or the Dominion, or both, adopted the policy of granting such assistance to the iron ore industry they would receive back manifold in taxes, etc., what they paid out, in addition to opening up and colonizing the non-productive area between Sudbury and the head of the Great Lakes. If the plan was not a success, the government would not expend one dollar apart from the cost of the necessary legislation, as the ore must be produced and marketed before the bounty is paid.

On the basis recommended, if Ontario assumed the whole burden, the tax per capita would be less than 35 cents.

If the Federal government co-operated with the province, less than fifteen cents (15 cents) per capita would provide the bonus.

Can any citizen of the Dominion of Canada condemn a policy designed especially to further the development of our own natural resources, and to promote our national and industrial welfare?

The following annual importations of iron and its products are given in

---

LOCATE A STEEL PLANT FOR WEST AT LAKE'S HEAD

Coal, Iron, and Power Meet There, is the Argument Advanced

FOR THE PRAIRIES

Would Have Guarantee for $15,000,000 Concern to Care For Large Western Market

J. E. Marks, Port Arthur, who has given a great deal of study to the iron ore situation, has a unique plan for developing the steel and iron industry at the head of the lakes. He believes that the Twin Cities are the logical place at which to locate a plant to feed the West's steel needs. He says the provinces of Manitoba. Saskatchewan, and Alberta should aid in the establishment of steel plants at the head of the lakes, where coal, iron and power meet. The establishment of a $15,000,000 steel plant at this point under a guarantee from these provinces of 4 per cent. on the actual capital invested, payable along the same lines, as the aid given by the Federal government to the shipbuilding plants would cost these three provinces 50 cents per capita per annum. This plant should be bound to sell at Duluth prices, and as they would be working under exactly similar conditions as the Duluth Steel plants, could operate as cheaply.

Let the Federal or provincial government of Ontario, or both, combine in giving a bonus of 50 cents per ton on all iron ore produced and manufactured in Canada, this bonus to extend over a term of not less than 15 years, and to be payable on production of same certificate of any manufacturers.

Had British Columbia, which is practically an isolated province, adopted this line several years ago instead of paying a bonus on pig iron they would probably have had extensive plants there in the course of construction.

Mr. Marks says every agriculturist in the West uses from $1,000 to $5,000 worth of iron and steel products in some form or other, and these machines constantly need replacing, and what owner is there in the West who would not pay 50 cents per annum for the privilege of buying his machinery at the greatly reduced cost mentioned? He adds that 75 per cent. of the tractor market is west of the great lakes, and contends that a greater bonus for a shorter term of years would not be applicable to the situation. Beneficiation of iron ores in Canada must come, and soon. So far as it is known, there are no large ore bodies of economical grade in any of the eastern provinces, but so little drill exploration has been done in the West that it is safe to assume that large bodies of good grade ore will be found, but it may take years to locate these, while it would take but a few months to bring some of our large deposits of easily-accessible, low-grade material into active service, and the profits derived from the granting of a reasonable bonus extending over a 15-year term to aid in the establishing of such plants would be incalculable. No money would be paid out unless it was well earned, and for each dollar distributed in the form of a bonus at least $6 would be spent in wages at the mines, on the railways and lake freights, entirely apart from the manufacture of raw products as well as extended search on our ranges for high-grade ore.

Canada Year Book for 1920:

From United States	
1918	$189,769,921
1919	185,116,309
1920	178,661,606
1921	226,862,465

All Countries	
1918	$195,248,713
1919	192,527,377
1920	186,319,876
1921	245,626,453

In 1922 and 1923 not a ton of iron ore was produced in the Dominion of Canada.

In just what light would this great Dominion of ours appear in the eyes of the financial and industrial world, if we suddenly stopped growing wheat, and what length of time would lapse before each and every government would appropriate as many millions as were needed to rehabilitate this great production? Only just time enough to pass the necessary orders-in-council, and to pledge the credits of both the Dominion and provinces. We have many millions of dollars invested in flour mills and kindred industries. We produce and market on an average of 300,000,000 bushels of wheat annually, which is worth before grinding or otherwise manufacturing about $250,000,000.

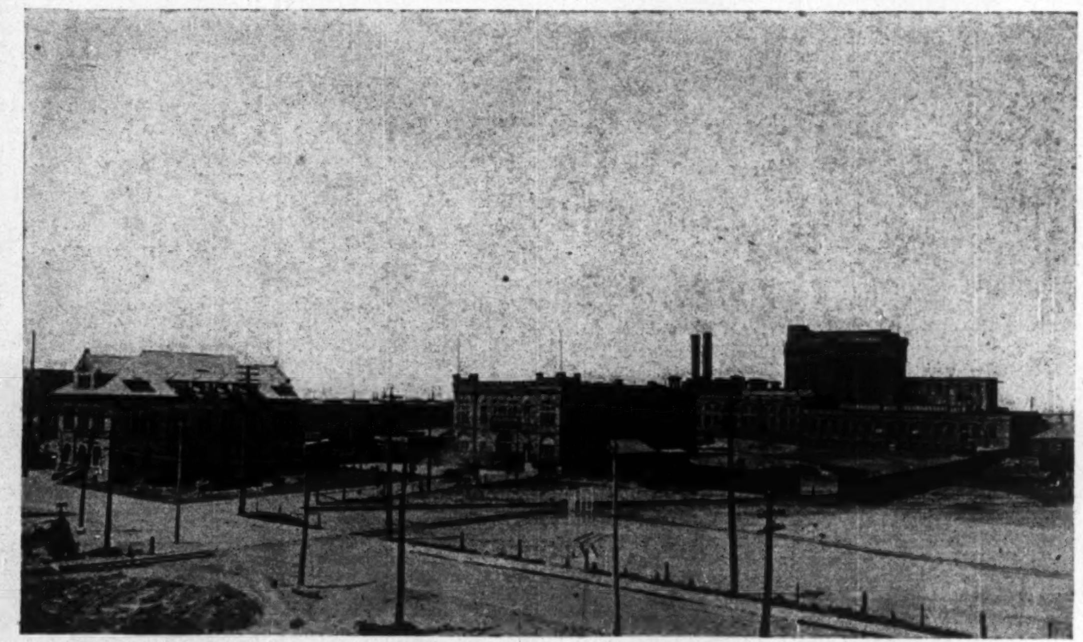
We also manufacture annually over $400,000,000 worth of iron and iron products; import annually $250,000,000 more for our markets, **but we do not produce to-day one single ton of the grain of the steel mills, Canadian iron ore.**

In 1922, the Ontario government appointed an iron ore committee to investigate the entire iron and steel industry, and find the cause of the non-development of the Canadian iron ore ranges. This committee recommends:

That the province of Ontario provide a bounty of one cent per unit of iron on each long ton of merchantable iron ore, natural or beneficiated, produced and actually marketed from Ontario deposits, and the such bounty be available to Ontario's producers of merchantable iron ore for a period of ten years. The committee further recommended that the Federal government co-operate with the province in the granting of such assistance to the industry.

The Firm Basis of

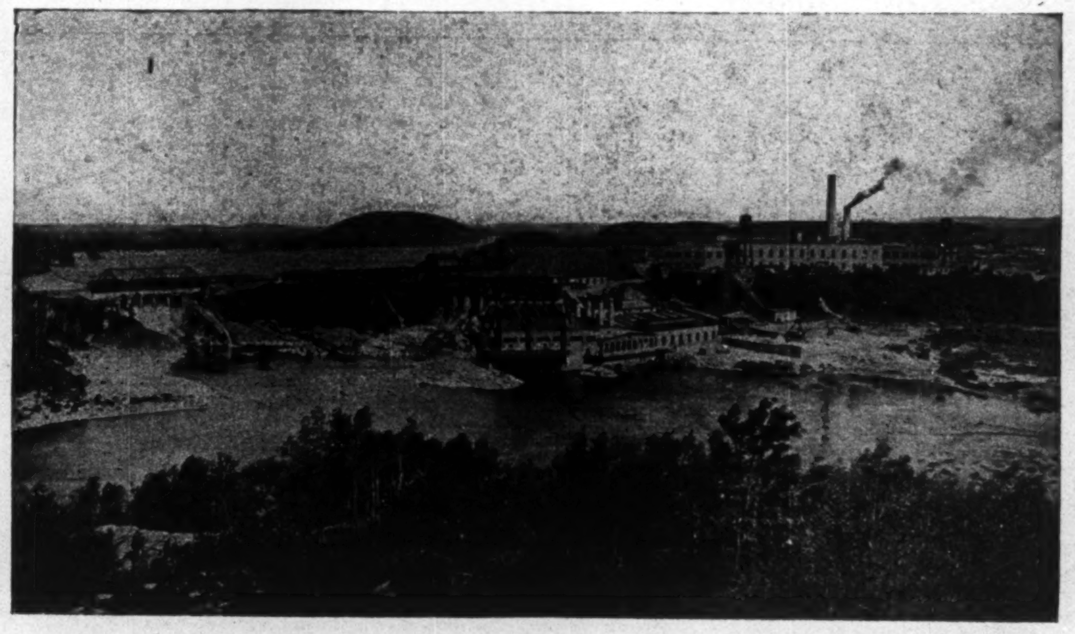
Spanish River Prosperity



Sault Ste Marie. 250 Tons.

NEWSPRINT

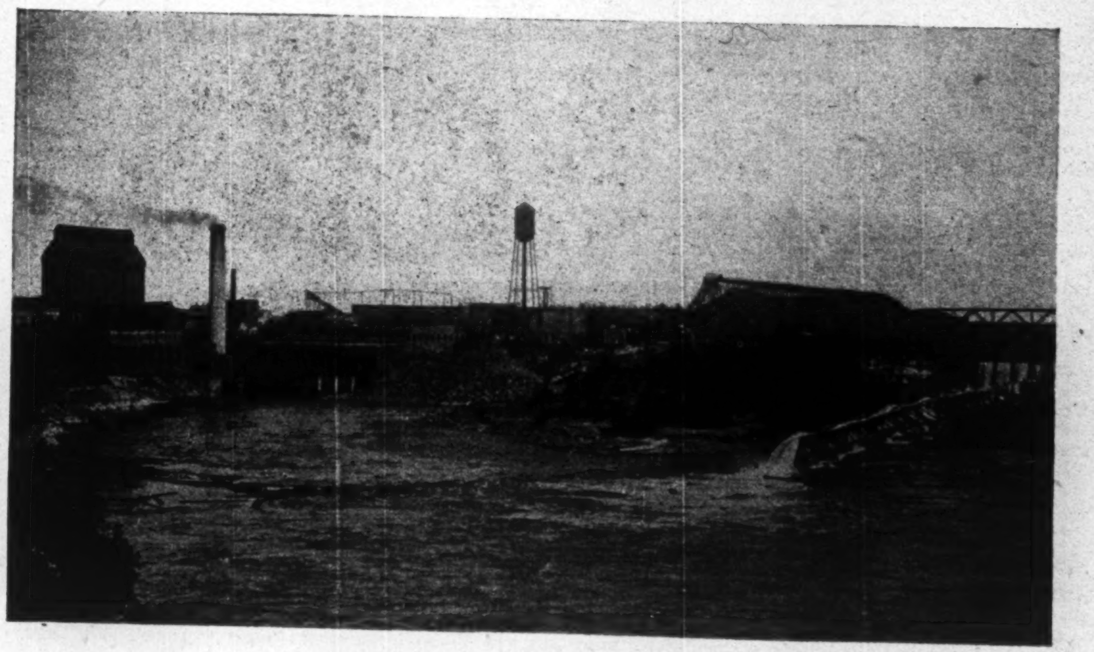
Daily Tons
700



Espanola. 320 Tons.

NEWSPRINT

Yearly Tons
210,000



Sturgeon Falls. 130 Tons.

The Spanish River Pulp & Paper Mills,
Limited

ONTARIO HAS LARGE COPPER DEPOSITS THAT ARE DORMANT

Production is Only at Large Nickel Mines of Sudbury District

MUCH ORE AVAILABLE

Large Bodies in Parry Sound and Massey District Could Be Mined—Have Gold Content

The production of copper in Ontario is confined to the nickel-copper companies of the Sudbury area. At various times attempts have been made to mine copper ore in the Parry Sound area, at Massey, at Bruce Mines, at Rock Lake, and in several other localities. In all these cases the ore was shipped to smelters at distant point, so that the transportation charges were too heavy for any but the richest ore. A number of years ago an attempt was made to concentrate the Bruce Mines ore, but it was found that the chalcopyrite was in such thin flakes that effective concentration was impossible by methods available at that time. It is likely that modern processes such as oil flotation would succeed and give concentrates that would stand considerable transportation charges.

A Way Out

But another way of utilizing the copper ore of Ontario is suggested says the Canadian Mining Journal. In the Parry Sound region there are half a dozen deposits in a small area and quite near Lake Huron. Some of these give promise of large tonnage. In the region near Massey on the Sault Ste. Marie branch of the Canadian Pacific Railway there is another group. The Massey mine and the Hermina were worked a number of years ago, but are now idle. There are some later discoveries near Whiskey Lake, about 14 miles from Massey station. These have not been developed far enough to allow of an estimate of tonnage but the outcrops so far uncovered in the heavily timbered ground where the deposits occur look rather promising.

Self-Fluxing Mixture

Some of these ores are siliceous while others have a basic gangue. It should be an easy matter to get a mixture that would be self-fluxing. The ores from these and other deposits near Lake Huron could be assembled at some central point by cheap water transportation and there smelted. Near the Massey area there are a number of undeveloped waterpowers, which would provide not only the power required for mining and milling, but also the electric current for electrolytic refining.

Is it not possible by combining these properties, to carry on a copper smelting and refining business in Ontario? The ore in the Whiskey Lake area carries considerable values in gold, and this would be recovered in the electrolytic refining. In this area and in several others where mining copper ore has been carried on, the amount of exploration work has been so small that it is quite within the range of possibility to prove up a large tonnage by consistent surface and underground work.

B.C. NOT PLEASED WITH OIL REPORT

Say the Possibilities for Oil Have Not Been Properly Tested Out

From Our Own Correspondent.

VICTORIA.—Whether there is oil in the Fraser River valley or not, is still puzzling British Columbia mining men, and the question has gained added interest as a result of the report of W. A. Johnston, of the Geological Survey, recently published.

Mr. Johnston seems to be rather skeptical of the oil prospects of the Fraser Valley, and in consequence of his assertions various defenders of the region are now coming out with contradictory statements in an effort to show that the Ottawa expert's analysis was, to say the least, not a very comprehensive one.

"Nobody who knows anything of the subject ever suggested drilling in the igneous rocks for oil," says E. A. Haggen, one of the province's best-known mining authorities, in referring to Mr. Johnston's statement that it is not definitely known that older sedimentary rock underlies the tertiary—a statement which is contradicted by the mapping of cretaceous measures at Harrison Lake and Sumas Mountain.

"All that has been claimed is that there were sufficient indications of oil to warrant exploration by drilling," pursues Mr. Haggen.

Mr. Estlin, formerly superintendent of the petroleum department of the Ontario Bureau of Mines, and who is now in charge of the Empire well at Aldergrove, believes the well to be capable of a production of twenty-five to fifty barrels of crude oil daily. The well is now down about 4,800 feet, and its great depth has necessitated such a small bore hole at the bottom that it will be somewhat difficult to test it out. A final test is to be made shortly, however, and this should prove conclusively whether further exploration in the Fraser Valley is warranted.

It is declared by several authorities that if such indications as occur in the Fraser Valley were never investigated there would be no discoveries of oil or other underlying mineral. E. H. Cunningham Craig, well-known British government petroleum expert, has declared that exploration in the Fraser Valley was fully warranted and that he was hopeful of favorable results.

Noted Geologist Reviews Iron Ore Ranges of N.-West Ontario

(Continued from page 17)

were formed in horizontal position, the banded material forming a bed or stratum immediately over another less uniform stratum of carbonate. Both appear to be products of hot mineralized waters that emanated from the volcanic rocks with which they occur. The banded material seems to have been deposited on the surface of the ground, while a superficial zone of the volcanic rock beneath was more or less completely transformed to carbonates by the same waters. At a later geological period the whole Keewatin formation was closely folded and the iron formations tilted almost on edge. They now outcrop in belts, or "ranges," from a few yards to as much as 8 miles in length, and from a few feet to 1,000 feet in width. The banded siliceous part is usually persistent and uniform in thickness, the carbonate part variable in thickness and discontinuous. Owing to the resistance to erosion of the banded material these "ranges" commonly form high ridges that are favorable for prospecting and mining.

Roasting Increases Iron Content

As the carbonate material is simply altered volcanic rock, it is both complex and variable in composition. Ordinarily, it is a pale grey material, resembling the lighter colored lavas in the Keewatin. It consists of a mixture of the carbonates of iron, lime, magnesia, manganese, and, perhaps, also of zinc, together with vestiges of the original rock matter, and a sprinkling, or even a large proportion, of pyrite and pyrrhotite. Its chemical composition is correspondingly complex and variable. Average varieties contain 30-40 per cent. of iron, 3-10 per cent. silica, 2-5 per cent. sulphur, 2 per cent. manganese, .02 per cent. phosphorus, 4-7 per cent. each of magnesia and lime, and a fraction of one per cent. of zinc. When roasted in rotary kilns to about 2,300 deg. Fahr., the carbonic acid gas and sulphur are driven off, and the proportion of iron thereby increased to about 50 per cent. The magnesia and lime render the roasted product nearly self-fluxing in the blast furnace and the manganese content is also advantageous.

Helen Deposits are Largest

The Helen siderite deposit in Michipicoten district is the largest and most favorably situated of the known crabonate bodies. It lies 9 miles northeast of Michipicoten Harbor, in a ridge about 300 feet high. Extensive diamond drilling by its owners, the Algoma Steel Corporation, has revealed a siderite body 50-225 feet thick, which extends along the ridge for 2,000 feet and dips almost vertically to a depth of 2,300 feet without change or evidence of termination. The ore-body is crossed about its middle by two diabase dykes and slightly dislocated. It is estimated to contain between 70 and 100 millin tons to a depth of 1,700 feet, 11 millions of which lie above an adit which has been driven in from near the base of the ridge. This adit is 8 feet by 12 feet in cross-section, about 800 feet long, and has a grade of .6 per cent. to allow for drainage. From its inner end, three drifts 8 feet by 8 feet in section, also graded for drainage, extend east and west along the siderite body. No mining has yet been done. About one and a half miles of railway spur is required to connect the mouth of the adit with the Algoma Central Railway at a point 11 miles from Michipicoten Harbor on Lake Superior. There is an ore-dock at the harbor, formerly used for handling ore from the Magpie and old Helen mines.

Long Lake Range Extensive

Another large siderite body, known as the Long Lake or Goetz range, is situated close to mileage 22 from Michipicoten Harbor on the Algoma Central Railway. This is similar in shape and attitude to the Helen ore body, and also extends along the crest of a ridge. It has been estimated that an adit driven into the ridge 150 feet below its crest would reach an ore body 2,000 feet long and 100-140 feet thick, which would yield above the adit level 3,000,000 tons of siderite carrying 35 per cent. of iron.

Siderite was mined at the Magpie mine from 1906 until 1920, during which time around a million and a half tons of raw ore were mined and roasted. The Magpie deposit is, however, 27 miles by rail from Michipicoten Harbor, and much smaller than either the Helen or Long Lake. It is only 60 feet thick and 1,200 feet long, and below the 400-foot level is split by an intrusion of igneious rock that made mining expensive. Consequently, in 1921, operations ceased, the mine filled with water and will probably not be again worked.

Dozen Other Deposits

A dozen or more other siderite deposits, either smaller, poorer, or farther from the railway, are known in the Michipicoten area. Deposits of similar geological nature, but less well known, occur east of Lake Nipigon and in Woman River area, and it is not improbable that in time still others will be found in the Keewatin formations of Northern Ontario.

Pockets of Hematite

In places, the Keewatin carbonate deposits have been weathered to form pockets of brown iron ore of minable dimensions and of sufficiently high grade to be marketed in the natural state. By a somewhat complicated process of oxidation, leaching, and reduction, the primary carbonate is converted into brown iron ore, and the pyrite and pyrrhotite are finally changed to pyrite, which is to some extent disseminated through the brown ore, but for the most part is segregated into nests and pockets from which it can be recovered at the same time as the iron ore.

The western end of the Helen siderite body was thus altered to form a pocket of brown ore, and pyrite about 700 feet deep and an equal diameter from which 2,823,369 tons of iron ore, and 51,930 tons of pyrite were mined between 1900 and 1918. The iron ore had an average composition of about 57 per cent. iron, 6 per cent. silica. .3 per cent. sulphur, .09 per cent. phosphorus, 4 per cent. water, and less than one-fourth of a per cent. each of lime, magnesia, alumina, and manganese.

The Helen brown ore deposit is now exhausted, but other smaller ones are known in Michipicoten district. Of these, the Josephine, situated near mileage 20 on the railway from Michipicoten Harbor, is estimated to contain 1,300,000 tons of ore, carrying not less than 50 per cent. of iron. A smaller one, carrying 40 per cent. ore, occurs near Brent Lake, 9 miles west of the Magpie mine terminus of the railway. It seems quite possible that other deposits of the same character may yet be discovered, either in Michipicoten district, or in other Keewatin areas where carbonate-bearing iron formations exist.

Large Magnetite Bodies

In many instances, the banded siliceous part of the Keewatin iron formation itself constitutes low-grade iron ore deposits, some of which are of great size. Some of the iron formations attain thicknesses of several hundred feet, and may be 10 miles or more in length. As a rule, they dip steeply and extend to unknown depths. The banded iron formation consists of layers of quartz half an inch to a foot or so thick, that alternate with layers of about the same thickness, composed mainly of finely crystalline magnetite, mixed with quartz, and sometimes with hematite, iron silicates or other iron-bearing compounds. The iron content ranges from 40 per cent. downward but can be increased by grinding the iron formation to pass a screen of 100 or more meshes to the inch, separating the magnetite magnetically, and making it into briquettes. Banded magnetite ore is beneficiated in this manner on a commercial scale at the Moose Mountain plant, at Sellwood.

Moose Mountain No. 2 ore-body is a large and conveniently situated example of this type of iron ore deposit. It is estimated to contain 110 million tons within 300 fete of the surface. Analyses of the raw material and of briquets made therefrom in 1914 are as follows:

	Raw Ore %	Briquets %
Iron	36.70	63.02
Silica	45.20	6.66
Sulphur	.019	.012
Phosphorus	.057	.037
Lime	1.06	1.50
Magnesia	1.59	1.53
Manganese	.04	.08

Large banded magnetite formations of similar character occur near Timagami station on the Timiskaming and Northern Ontario Railway, in the Woman River area, and at many other places in Northern Ontario, especially west and southwest of Fort William.

The Atikokan deposit, situated 128 miles west of Port Arthur on the main line of the Canadian National Railway, is of somewhat different geological character, but constitutes one of the largest high-grade magnetite deposits in Ontario. The deposit is irregular in form and no exact estimate can be made of its size. There appears, however, to be several million tons of magnetite ore. containing 45-60 per cent. iron, 5-20 per cent. silica, 2-15 per cent. sulphur. and .01-.2 per cent. phosphorus.

Descriptions of the many other magnetite deposits found in Ontario can be found in the official reports previously mentioned.

Animikie Iron Formation

Several hundred square miles of territory southwest of Fort William and Port Arthur, and also to the northeast of these cities, are underlain by the Animikie series of rocks. The Animikie series includes a low grade iron formation of the same character and age as that which, in Minnesota, has given rise to the great Mesabi hematite deposits. For this reason it is of much possible importance, though no commercial bodies of iron ore have yet been found in Ontario.

Exploration has been chiefly concentrated in an area near Loon station, northeast of Port Arthur. A bed of high-grade hematite, 4 feet thick, was found exposed in the face of a cliff, but diamond drill exploration has failed to reveal any important underground extension of this bed. On the contrary, a lean formation, containing iron in the form of siderite and nowhere over 27 per cent., extends to a depth of 85 feet from the surface. This is followed by 30 feet of slate and by 40 feet of another lean cherty iron formation containing thin layers of magnetite and of hematite. All these formations lie in nearly horizontal attitudes. The upper formation has been oxidized for a few feet below the surface, and from this has been obtained a quantity of limonite of merchantable quality, some of which was shipped, and about 50,000 tons of which lie piled near Lake Superior.

Southwest of Fort William the Animikie series is more extensive and thicker, and presumably affords greater opportunity for the existence of concentrations of merchantable iron ore. Prospecting for such deposits is rendered difficult, however, by the fact that the strata lie nearly flat, and are largely concealed by glacial drift where they are not more heavily overlain by sill-shaped bodies of diabase. Much drilling will probably have to be done in order to determine the presence or absence of commercial ore-bodies.

Same as Belcher Islands

Extensive areas of iron formation of about the same age and general character as the Animikie occur on Belcher Islands, and at other places along the coast of Hudson Bay. Although these deposits are not in Ontario, the recent extension of the Timiskaming and Northern Ontario Railway towards James Bay renders them of possible future importance to the iron and steel industry of the province. According to Dr. G. A. Young, of the Geological Survey, who examined these deposits in 1921, the iron formation in Belcher Islands underlies a land area of nearly 200 square miles, and has a total length of outcrop of not less than 110 square miles. The iron formation is 300-450 feet thick, and is not greatly folded. It contains at all observed points two or more highly ferruginous zones from 10 to 50 feet in thickness, composed mainly of quartz. magnetite and hematite, and in places a smaller proportion of iron silicate. Samples representing thicknesses up to 24 feet yielded on analysis 35-45 per cent. iron, and 33-46 per cent. silica. The phosphorus content is .04-.09 per cent., sulphur .01-.10 per cent., titanium oxide .04-.10 per cent., manganese .2-.6 per cent., lime .3-.6 per cent., and magnesia 1.00-1.6 per cent. One band of magnetite 2 feet thick yielded 52.26 per cent. Owing to their prevailingly high content of silica, the Belcher Island materials are not commercial ores. Physically, they resemble the Keewatin banded magnetite, as exemplified by the Moose Mountain deposits, and would probably require much the same process of beneficiation.

MANY OLD MINES AT KASLO, B.C., TO OPEN IN SPRING

Sandon Silver Area Has Come Strong During Past Year

From Our Own Correspondent.

NELSON.—From Kaslo come reports of fine indications of increasing mining activity there, starting in the early spring.

Many of the old mines in the district will be reopened, and preparations are being made for an active period of development during the summer.

Among the properties that are being prepared for extensive development are the Whitewater, at Retallac; the Gibson, on Kaslo Creek, Silver Bear, and Silver Bell, on Kaslo Creek; the Wellington, at Retallac,; the Ruth, at Sandon, and the Utica on Twelve-Mile Creek. The latter was recently taken over by Col. H. H. Armstead, of New York.

Many of these mines have been idle for years.

An important strike of good ore was recently made on the Cork-Province.

The T. C. F. group, near Kaslo, is being steadily developed, and, it is stated, that it will become a steady shipper this summer. The owners of the property are E. Timms, and E. J. Cooke, of Kaslo, and M. Jesty and associates of England.

The Slocan division, which continues to be an important factor in British Columbia silver production, came back strong in the year just closed. This applies especially to the Sandon camp. The principle producer was the old "Slocan Star," now known as the Silversmith, but substantial amounts were added to the output of lead and zinc by the Wonderful, the Ruth, the Standard, the Van Roi, the Bosun, and the Hewitt.

The mines of the Ainsworth division did not contribute a good deal to the year's tonnage, but will do much better in 1924, as plans for much more extensive development are being made.

In the Slocan development, work on the Meteor gave encouraging results. Small shipments of high-grade ore have been made recently from the Ottawa, the Anna, the L. T., the Slocan C., and the Meteor.

In the Nelson Mining Division gold operations have not been very active. The Sheep Creek camp near Salmo has been idle, except for a little prospecting work, but it is likely that the Nugget mines will be in operation again next summer. The Molly Gibson silver-lead property is being worked under lease by W. A. Cameron. The Humming Bird, a gold proposition, near Nelson, has been bonded to United States interests. The Emerald made a few shipments of silver-lead, but it has been closed down pending arrangements for more extensive development.

Prospectors were particularly in the Ymir Camp, and especially in regard to the Goodenough mine, where high-grade ore has been uncovered.

Several hundred miners are being employed by the Consolidated Mining and Smelting Company at the Le Roi-Centre Star Group in the Trail district.

The recent finds of remarkably rich ore at the I. X. L. property at Rossland has led to the reopening of a number of adjoining properties.

The Wig Wam group, south of Revelstoke, is to have a small power plant and compressor installed at once by the owner, W. T. Dombleton. The mineralization is a mixture of lead and zinc, with small silver values.

The Miller-Mac in the Arrow Lakes district is expected to ship a car of high-grade silver ore soon. The ore has been partly extracted from the Black Bear claim.

BINGO MINE IN NORTH MANITOBA LOOKS PROMISING

Provincial Minister Points to it as Example of Wealth Available

From Our Own Correspondent.

WINNIPEG.—Hon. F. M. Black, in a speech in the house here, made a most interesting reference to the mineralized area of Manitoba, and to the similar district in the neighborhood of The Pas, which, as developed, will be tributory to Winnipeg. Special mention was made of the Bingo mine at Herb Lake, about 100 miles straight north of the Pas. The Bingo is reached over the Hudson's Bay Railway. Prospectors and others go to Mile 81 on the railway, and then travel 22 miles by sleigh.

The man who is making the Bingo is Joseph Myers. Mr. Myers came to Western Canada from Australia, and had formerly lived in London. He was for several years interested in the Rice Lake area, and later took an option on the Rex mine, which is also in the Herb Lake area. While examining the Rex he became convinced that the property, which is now the Bingo, was valuable, and he gave up the Rex option and acquired the Bingo.

No mill of any kind has been built on this property, but a shaft has been sunk to a depth of 425 feet, and much drifting has been done at the 200, 300, and 400-foot levels. Premier Bracken spent some time at the mine last year, and it is probable that Hon. F. M. Black got some of his information from the premier. What Mr. Black said was that what had been done at the Bingo gave the assurance that a fortune would be realized out of it. There is enough ore on the dump at the present time, it is said, to pay all the costs of operation to date.

Mr. Myers has never made any serious attempt to secure money for the development of the Bingo in Western Canada. The capital has been provided by British people, and it appears as though they were to reap a rich harvest. The British shareholders took preferred stock in one-pound shares at par, and all the stock was sold by Mr. Myers without a commission charge.

E. F. Hutchings, one of Winnipeg's few millionaire merchants, recently gave out an interview, in which he based his hopes for the future prosperity of the province on the wealth of minerals in the great hinterland. Mr. Hutchings is a hinterland man, hunter, sportsman, and camper, and has lived for considerable periods the life of a prospector. He is absolutely convinced of the potential value of the mineral deposits, and expresses the conviction that a supply of cheap labor, such as the world will afford, would completely solve the problem of prosperity for the prairie provinces. All that is needed is that these untouched resources be developed.

HIS PREACHING EFFECTIVE

Dr. W. L. Goodwin, the well-known geologist, who is at present conducting classes for prospectors in the North, spoke approvingly of the organization of the Algoma Iron Ore Association, for the purpose of encouraging the development of iron, which was, he said, a thing he had been preaching for years.

Quality

NORTHERN EXPLOSIVES DRAGON
THE BEST YET

Northern Gelatin

NORTHERN EXPLOSIVES
LIMITED

Cobalt, Ont. Timmins, Ont. Montreal, P.Q. Sudbury, Ont. Thetford Mines, P.Q.

ALGOMA

"The Promised Land"

Do You Remember

reading of the struggle Moses had with his people; the vicissitudes, the hardships, the doubtings, before he finally brought them out of the wilderness and showed them "The Promised Land," a land "over-flowing with milk and honey"? It was a long, hard struggle, BUT—he persisted and made the grade!

Why?

Because he had Knowledge and Faith.

ALGOMA TO-DAY IS CANADA'S PROMISED LAND!

Here will be found untold mineral wealth—iron, gold and copper.

This is not mere conjecture—not a mirage.

This range has already produced more Iron Ore than all the rest of Canada combined!

One deposit, the Helen Mine, has produced almost 3,000,000 tons of Hematite Iron Ore.

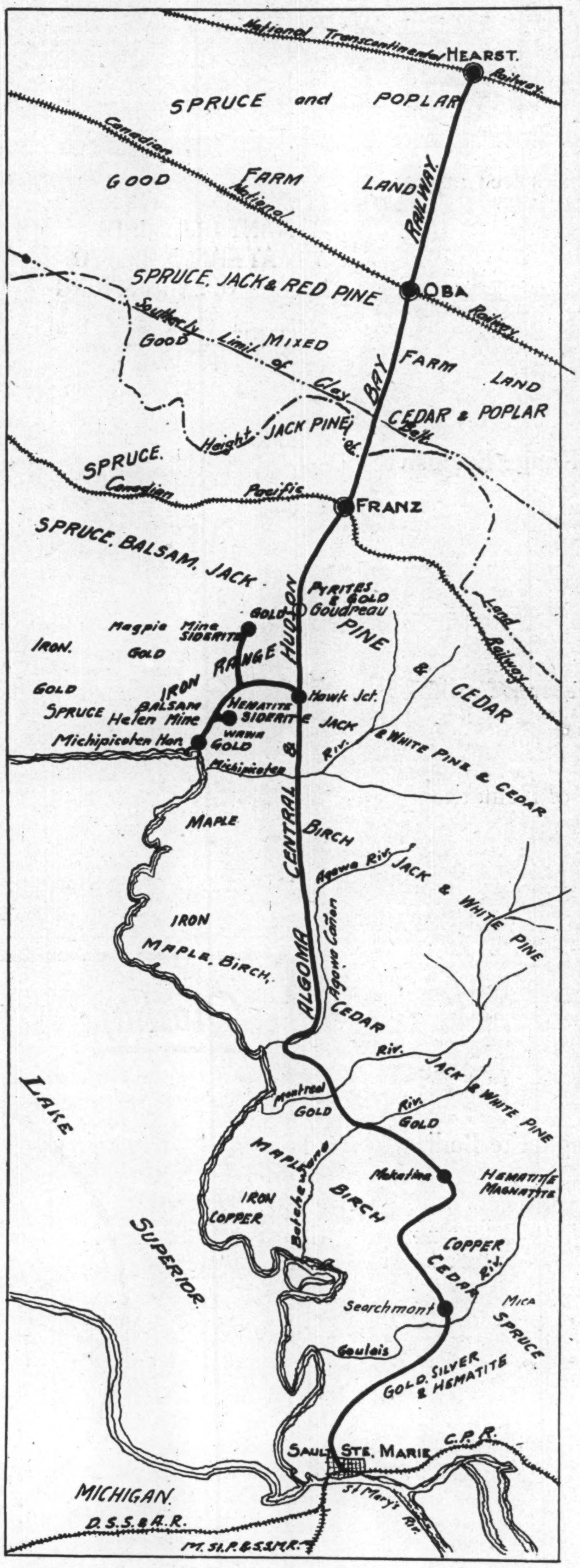
NEW FINDS

In the lands adjacent to the railway one single body of siderite has been proven to contain over 100,000,000 tons of Iron Ore and one body of magnetite over 50,000,000 tons of Iron Ore.

There are many other large deposits of hematite, magnetite and siderite ore located here awaiting development.

Recent extensive prospecting and diamond drilling have proven this.

LOOK AT THE MAP


National Transcontinental Railway
HEARST.
SPRUCE and POPLAR
Canadian National
GOOD FARM LAND
ALGOMA CENTRAL & HUDSON BAY RAILWAY.
SPRUCE, JACK & RED PINE
OBA
Railway
Southerly Limit of Clay Belt
GOOD MIXED FARM LAND
Height of Land Railway
JACK PINE
CEDAR & POPLAR
SPRUCE.
Canadian Pacific
FRANZ
SPRUCE, BALSAM, JACK PINE & CEDAR
PYRITES & GOLD
Goudreau
Magpie Mine
SIDERITE
GOLD
IRON.
GOLD
IRON RANGE
GOLD
SPRUCE
BALSAM
Helen Mine
HEMATITE
SIDERITE
Hawk Jct.
JACK & WHITE PINE & CEDAR
WAWA
Michipicoten Har.
GOLD
Michipicoten Riv.
MAPLE
BIRCH
Agawa Riv.
JACK & WHITE PINE
Agawa Cañon
IRON
MAPLE, BIRCH.
CEDAR
Riv.
JACK & WHITE PINE
Montreal Riv.
GOLD
GOLD
MAPLE
Batchewana
IRON
COPPER
BIRCH
Mekatina
HEMATITE
MAGNATITE
LAKE SUPERIOR
COPPER
CEDAR
Riv.
MICA
SPRUCE
Searchmont
Goulais
GOLD, SILVER & HEMATITE
SAULT STE. MARIE
C.P.R.
St Mary's Riv.
MICHIGAN.
D.S.S.&A.R.
M.St.P.&S.S.M.R.

A large proportion of the rocks in the area along the Algoma Central Railway are the old pre-Cambrian volcanics, the same formation that has been so productive of mineral wealth in other parts of Northern Ontario.

The development of Algoma's Iron Ore Ranges in the immediate future is necessary if Canada is to continue her industrial progress. Steel must be the nation's basic industry and to make steel we must have Iron Ore.

With no Iron Ore mines where would Canada have been during the recent World War without the assistance received from a friendly neighbor nation?

THINK THAT OVER
AND
Let's develop our own resources now

Gold

Favorable geological conditions exist at many points. Prospecting and development work is being actively carried on and in the Goudreau District one promising gold mine is already being developed.

Timber

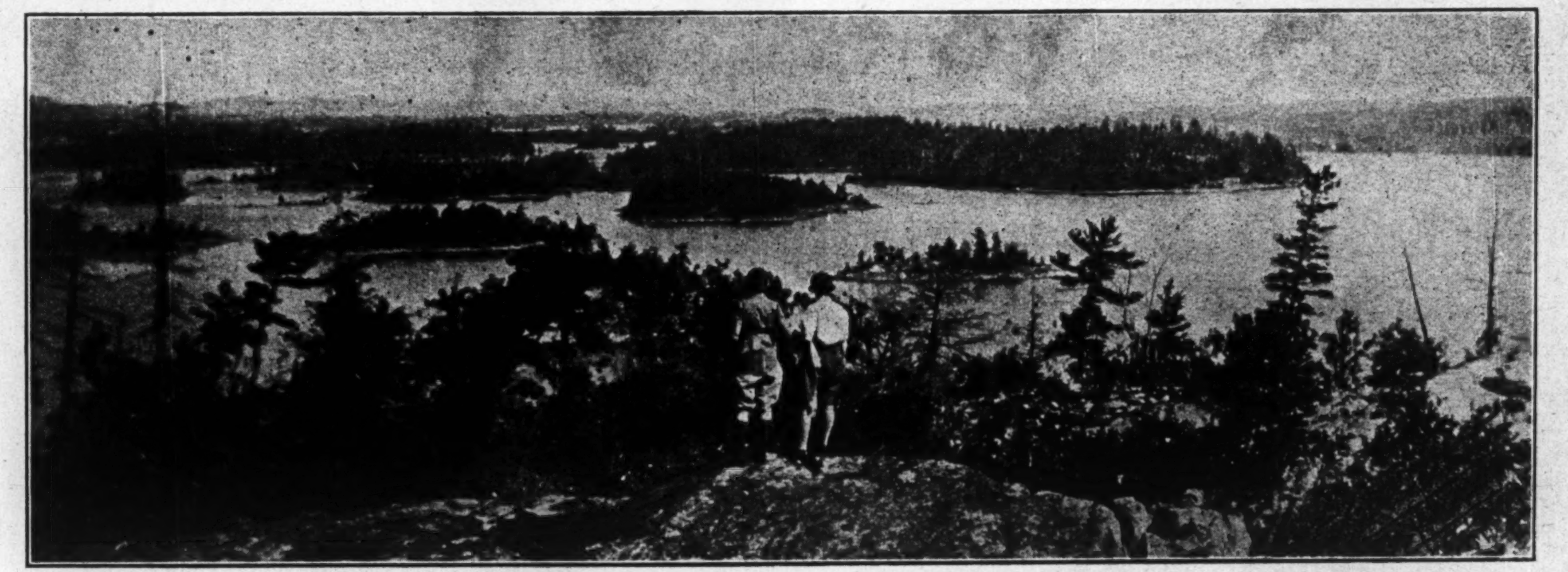
One of the best pulpwood areas in the Dominion. Also vast tracts of hardwood.

WATER POWER
Yes—in abundance

Have Knowledge
Have Faith

The Algoma Central & Hudson Bay Railway

Sault Ste. Marie, Algoma District, Ontario



Bay of Islands—Panoramic view of playground lying along Algoma Eastern Railway.

A LAND OF

Opening Opportunity

A New Promised Land

THE great territory lying along the north shores of Lake Huron is just beginning to attract attention. It is true that its mines go back far beyond the memory of living man, but the present generation is only now beginning to awake to its fabulous possibilities and to its rich promise for the future. Located along the line of the Algoma Eastern Railway are the richest nickel deposits in the world.

Indeed this industry, with its centre in the thriving town of Sudbury, dominates the nickel market of the world.

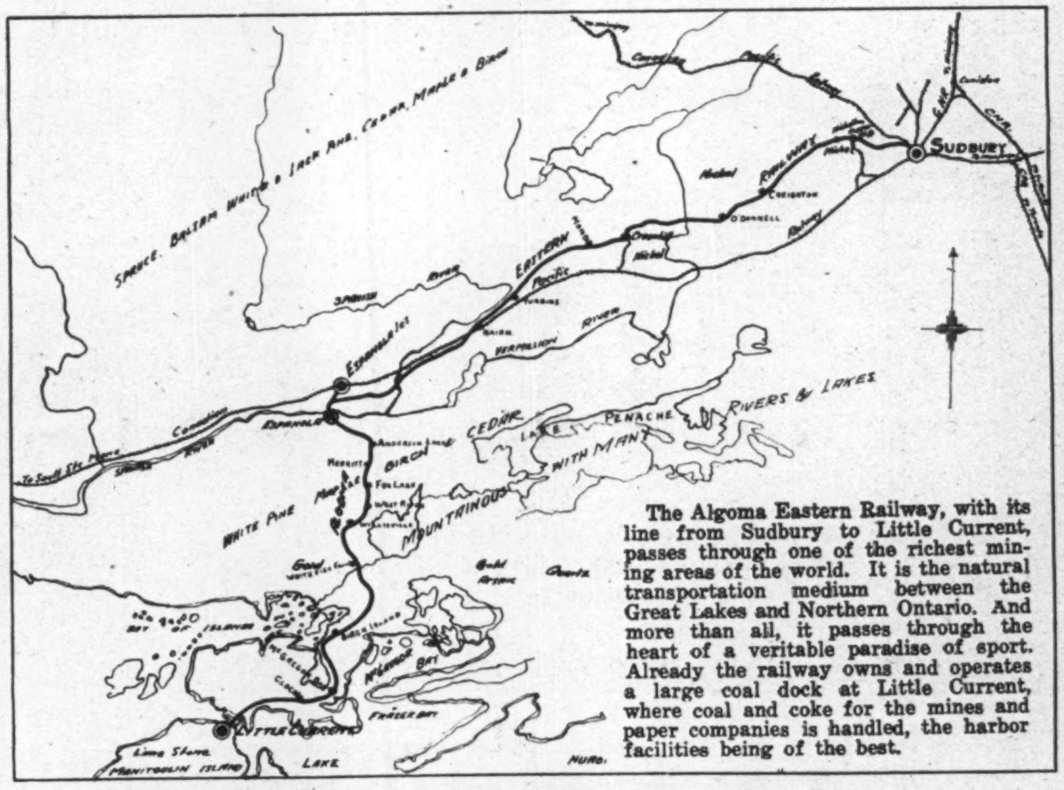
At Copper Cliff there is the great plant of the International Nickel Company of Canada, Limited, with its many ramifications and its great smelters are constantly in operation. Two miles west of Copper Cliff the mines and smelter of the British America Nickel Corporation are in operation at Nickelton.

Farther along the line at Creighton Mines, there is the largest Nickel producing mine in the world.

Mining is an established industry of the north but its possibilities have hardly yet been fully appreciated. In the underlying strata of this great northern section, other minerals are known to exist in quantities that will some day bring this section fame not only for its nickel mines, but for its gold and silver and iron as well. These resources are little by little, coming to light. Prospects already developed have abundantly proven the truth of this judgment. This section gives promise, too, of being one of the great pulp and paper districts. Already at Espanola there is the principal mill of the Spanish River Pulp and Paper Mills, Limited, and the future promises a great development here, too.

With the growth of these various industries there has come and will come still more, an opportunity for all those activities and interests that minister to these various needs. A rapid growth in population is assured, and with it will come growth in business interests that will mean prosperity for those who are there to meet it.

Lumbering operations are still carried on quite extensively in the territory served by this railway.



The Algoma Eastern Railway, with its line from Sudbury to Little Current, passes through one of the richest mining areas of the world. It is the natural transportation medium between the Great Lakes and Northern Ontario. And more than all, it passes through the heart of a veritable paradise of sport. Already the railway owns and operates a large coal dock at Little Current, where coal and coke for the mines and paper companies is handled, the harbor facilities being of the best.

THE MAP OF THE ALGOMA EASTERN RAILWAY COMPANY LINE

The Haunt of Fish, Fowl, and Game

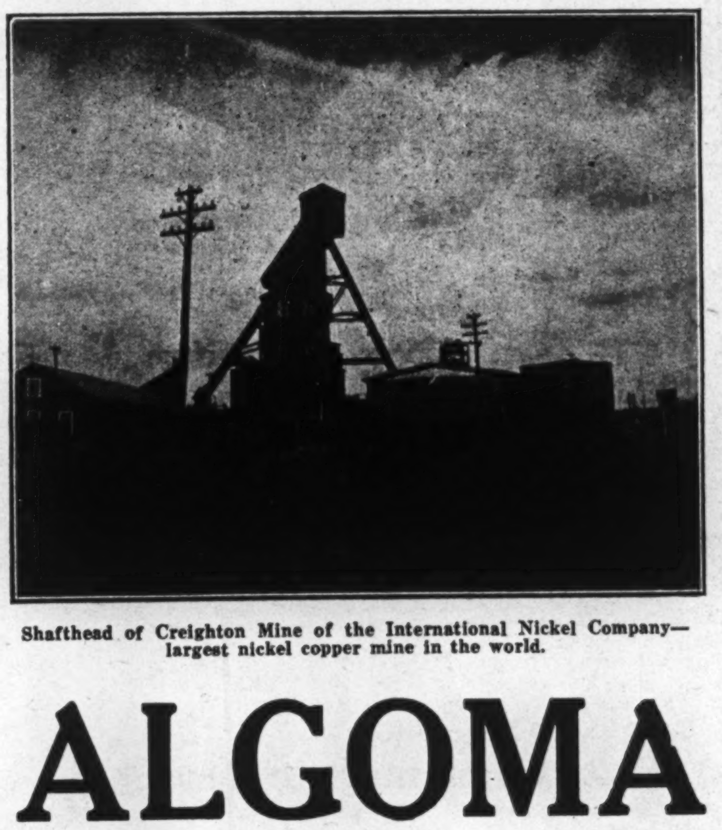
YEAR by year the Sudbury, Algoma and adjoining sections are growing in favor with the tourist, the artist and the sportsman. Nothing in Canada can surpass the natural beauty of this great section and the section is becoming a Mecca for artists who delight in its unaccustomed beauties.

It is, too, a vacation land that has few equals. All that great, unspoiled out-of-doors, calls to the summer visitor.

Especially is this true of Grand Manitoulin Island. It is one of that lovely Archipelago that dots Lake Huron, and at once the largest and most beautiful of these thousands of beauty spots. All along its shores there are places that call the camper and summer idler. It has fine motor roads that add an unusual novelty to a summer in the north.

Until the construction of the Algoma Eastern Railway, Manitoulin Island was virtually shut off from the world in the depths of winter. Even in summer it was connected to the mainland only by steamer. Now the vacationist and traveller can go from Sudbury to Little Current on the island itself, by rail. The beautiful McGregor Bay and Bay of Islands with their waters dotted with hundreds of islands, are a paradise in themselves for the artist, camper and fisherman. These places are yearly becoming more popular due to their proximity to the Railway.

Farther inland on the Algoma Eastern, where it passes through the picturesque LaCloche Mountain country, you come on little streams rich in brook trout and speckled trout, and bass and pickerel. Indeed all along the line of the railway, if you were to step off almost anywhere, you would find good sport. These are almost virgin waters and they assure the angler a constant source of enjoyment. For the hunter, too, this section cannot be surpassed. There are moose and red deer in abundance, while partridge and wild duck are plentiful almost everywhere. It is indeed the very heart of the great sporting district of Ontario and the Algoma Eastern Railway has made its beauty spots easy of access to all who care to come.

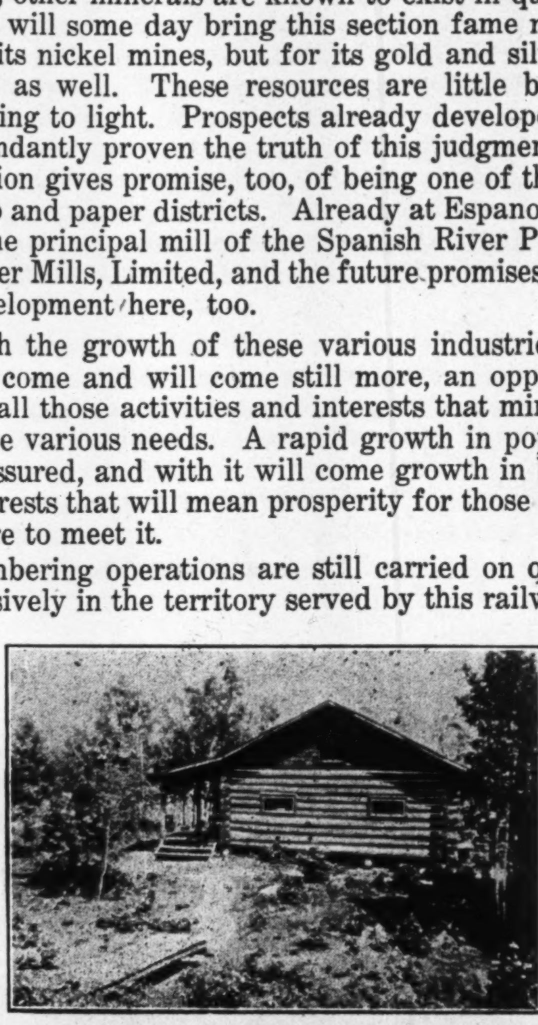


Shafthead of Creighton Mine of the International Nickel Company—largest nickel copper mine in the world.

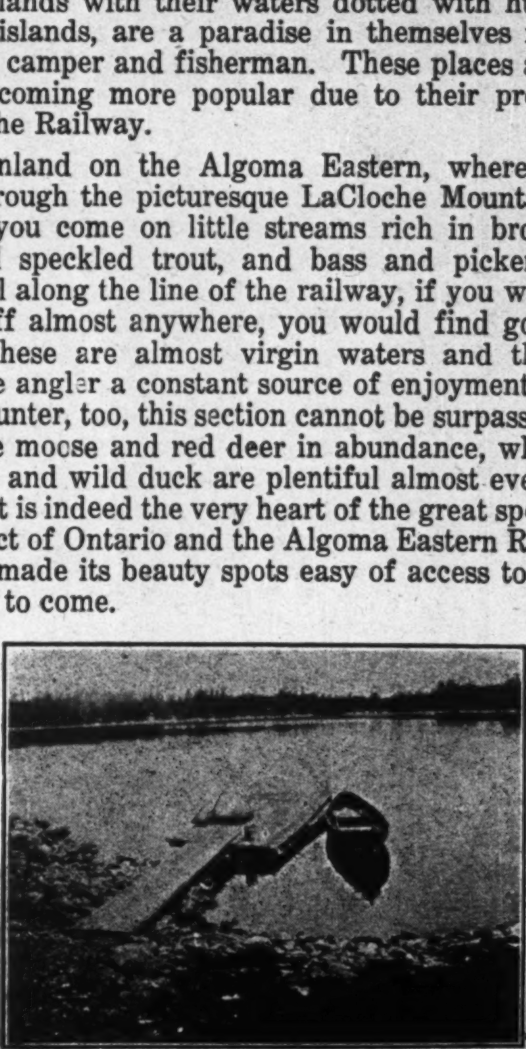
ALGOMA

Calls to those who are Seeking New Fields of Endeavour.

It Offers Unparalleled Opportunities



Summer Cottage along line of Algoma Eastern Railway.

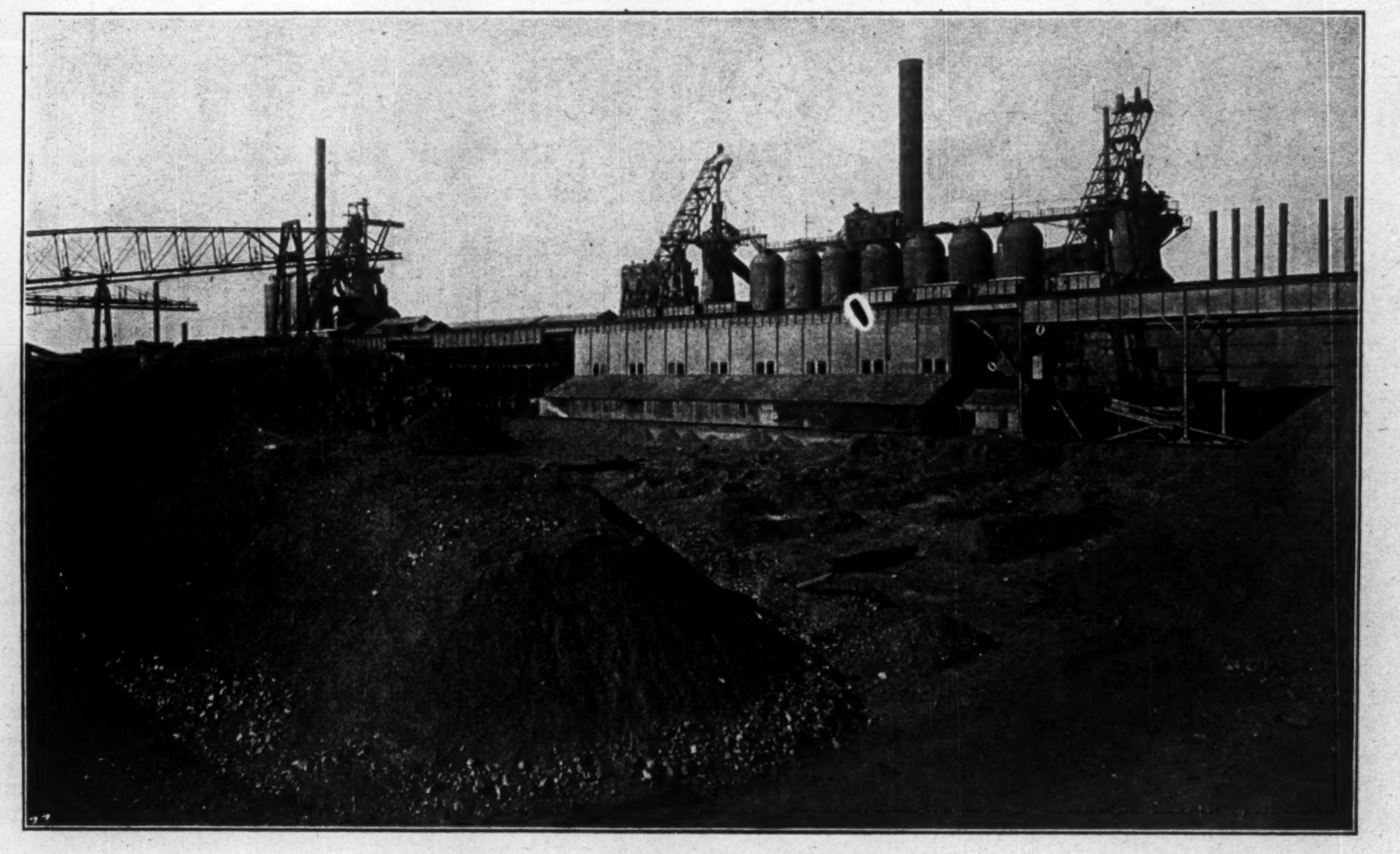


Along line of Algoma Eastern

MARK OF ALGOMA O.H. QUALITY

	1,000,000	tons of	Coal
	900,000	" "	Iron Ore
	250,000	" "	Limestone
	2,000	" "	Ferro-Silicon
	4,000	" "	Ferro-Manganese
and	3,500	" "	Fluorspar

are consumed annually at our works at Sault Ste. Marie, operating on capacity basis.



ALGOMA

Steel Rails Structural Steel Bars

Blooms, Billets and Slabs

Machine Cast PIG IRON

Foundry - Malleable - Basic

By-Product Furnace Coke

Sulphate of Ammonia

ALGOMA STEEL CORPORATION, LTD.

MAIN OFFICE AND WORKS

SAULT STE. MARIE, ONTARIO

BRANCH OFFICES: MONTREAL - TORONTO

MARK OF ALGOMA O.H. QUALITY

Recommendations of Ontario Iron Ore Committee Backed By Careful Reasoning and Logic

Bounty Proposal Will Involve Distribution of Public Funds Only if Iron Ore is Successfully Produced—Failure Will Not Take Toll of Government Treasury.

Finding of Ontario Iron Ore Committee.

"We, the Ontario Iron Ore Committee, unanimously recommend and urge:—

"1. That the Province of Ontario provide a bounty of one cent per unit of iron, on each long ton of merchantable iron ore, natural or beneficiated, produced and actually marketed from Ontario deposits and that such bounty be available to Ontario producers of merchantable iron ore for a period of ten years.

"2. That Section 111a, in The Mining Act of Ontario, be repealed.

"3. That a properly qualified geologist be permanently assigned to the work of studying and reporting on our Ontario iron ore deposits.

"4. That a mining engineer be retained and charged with keeping the Department of Mines continuously in touch with improvements made in the art of ore dressing, concentrating and sintering of low grade iron ores, and that by co-operation with the authorities of the University of Toronto, sufficient equipment should be provided to enable such mining engineer to test any of these reported improvements in their practical application to our own Ontario iron ores."

"Many people believe that any industry that must be bonused or in some other way artificially supported, is unnatural and unworthy of that assistance. Yet in devious ways assistance is being given to nearly every industry. Experimental farms are operated by the governments to give guidance to the farmer. Thoroughbred stock is distributed at public expense. To perpetuate fishing, hatcheries are maintained. The credit of the province has been pledged to provide cheap power for the manufacturer. These are but a few of the illustrations that could be used to illustrate the point that bonus or bounty is known under many names.

Against Direct Aid

"Numerous plans have been suggested as to how best the government might supply the necessary impetus to get iron ore mining in Ontario under way. Apart from the idea of direct bonus on actual production and sale of iron ore, they are all somewhat similar, in that they would involve the risking of public funds in ventures that may or may not prove financially successful. In the case of failure where direct financial assistance had been given to the producer by the government not only would it mean a monetary loss to Ontario, but the government itself would be involved in the failure, and the future of the industry jeopardized to that extent. Moreover, if direct assistance were granted to any one producer, every iron ore prospect, little or big, would expect similar treatment. Friction and chaos would result.

"Without attempting then to cloak our recommendation in the habit of some paternalistic experiment, of questionable value, we have bluntly and directly advocated a bonus, because assistance will be available to all who produce and actually market iron ore from Ontario deposits, and at no time will the province be involved in unsuccessful development.

"With the bonus as an incentive, the best brains available will be turned upon this problem. The relative merits of the different iron ore deposits in the province will be worked out upon a practical, commercial basis, and we believe that ere many years have passed Ontario will be supplying her furnaces from her own resources.

Why One Cent Per Unit Bonus

"We have stated that certain siderite and high-grade magnetic iron ore can probably now be mined and beneficiated at a cost approximately equal to their market value, but that under such conditions there is no incentive for capital to enter the field. The amount of bonus stipulated, viz., one cent per unit of iron, is, in our opinion, the minimum necessary to interest capital in the venture. Even this amount may not be sufficient to stimulate commercial production from our low-grade magnetic iron ore deposits. requiring fine grinding before concentration. Then, again, on every ton of iron ore imported, and furnaces in Ontario, we pay in taxes and exchange to another country approximately a like amount. Surely it were better that this money should stay in our own province and be used to build up and develop the industrial and economic life of Ontario.

Why Stipulate 10 Years?

"If our deductions, based largely upon statistics referred to in Chapter 111, be correct, we should have our own iron ore industry firmly established ere ten years have passed. By that time the price of iron ore will probably be considerably higher than it is to-day, by reason of depletion and control of the naturally high-grade iron deposits in the United States. Lake Superior iron ore district. Then again, it takes time to investigate the relative merits of the different deposits, and it takes additional time to equip and develop a mine and provide a beneficiation plant. If at the end of even three years Ontario, under the stimulus of a bounty, is providing appreciable quantities of merchantable iron ore, we may consider ourselves fortunate. This means that the bounty will be actually available to producers for only about seven years.

Change Mining Act

"To produce beneficiated iron ore. even with the assistance of the bonus recommended, at a cost that will permit it to be marketed in competition with other ores, production must be on a comparatively large scale. Producers must be free to market their product where an opportunity offers, either in Canada or on foreign markets. If we can export a certain amount of this ore, so much the better for Ontario and Canada.

"To open up our iron mines foreign capital will probably be required, and investors naturally will ask for a definite and permanently clear understanding that their title is secure and that they will be permitted to develop any and all markets available.

Iron Ore Geologist

"This recommendation is in no sense to be constructed as a reflection on the work of our provincial geologists. As a matter of fact, the present staff have established a brilliant record in their own field, and the precious metal mining industry is expanding so quickly that any suggestion that some one member be withdrawn from present work and assigned permanently to a study of our iron ranges, could only be considered as preposterous. We believe that the iron ore geologist should be an addition to the present staff.

Engineer to Study Beneficiation

"Great progress has been made in methods of fine grinding, concentration and sintering of low-grade iron ores, during the past five or six years. During experimental work of this kind, much information may be obtained that is not available for publication. Failures are seldom described, yet a knowledge of these same vain attempts may be of very great value to the pioneer in another field.

"This mining engineer should be the friend and advisor of every operator seeking to produce iron ore in Canada.

Effort Across the Line

"Suitable and sufficient experimental laboratory equipment should be provided to enable this mining engineer to check all reported processes and, where necessary, demonstrate them. The co-operative assistance of the University of Toronto would immediately place at the disposal of the department of mines much of this equipment, and such as was additionally required should be furnished by the department.

"If any additional argument were required on this subject, we would refer the reader to what is being done in the state of Minnesota. Within its boundaries are positive reserves of high-grade iron ore estimated in excess of a billion tons. The people of that state have an intimate knowledge of the iron ore industry, and a practical experience extending over many years, and they, through their school of mines, and in co-operation with the Federal government, are building an experimental station on the university campus that will cost, when completed, nearly $500,000. To operate and maintain this station, largely for research, looking to the future utilization of their low-grade iron ores, the state and Federal governments provide $50,000 each year.

"We are not suggesting anything so elaborate or expensive as the Minneapolis experiment station, but surely if a state so richly endowed in iron ore resources considers a solution of this problem so pressingly important it is time for Ontario to undertake some work of a like nature.

Why Dominion Should Help

"Finally, we are of the unanimous opinion that one half of the bonus recommended should be provided by the Dominion government, and cite the following reasons:

"1. The active development of our iron ore resources and the enlarging of our steel industry will be very effective in maintaining a favorable international trade balance.

"2. The colonization of Northern Ontario is largely dependent upon the mining industry, and that portion bordering the non-productive sections of our national railways is dependent largely upon our iron resources.

"3. Largely increased traffic may be obtained for the national railways from domestic production of iron ore, and perhaps it would not be unreasonable to suggest that the profit to be made by our publicly owned railway would, in the gross equal, and in time exceed, the proposed Dominion share of the bounty."

"We have attempted to argue and prove that Ontario must in the near future stand prepared to provide her own iron ore for her own requirements. The results of our inquiry indicated that the task is possible. It is our belief that the bounty proposed is fair and equitable, and just sufficient to attain the desired results. Undoubtedly Canada, as a whole, is as much concerned in the necessity of utilizing our own iron ore resources as Ontario or any of the other provinces."

U. S. High Grade Ores Will Last Few Years

The following quotations are taken from "The Iron Ores of Lake Superior," by Crowell & Murray, 4th Edition:

"Recent estimates of the iron ore resources of the Lake Superior regions show that the ores that are now of commercial grade will be exhausted in a comparatively few years, and that the great bulk of the iron ore resources of the region will average less than 45 per cent. in iron. Concentration methods that will make this low grade ore available are sure to become of increasing importance."

IRON ORE PROBLEM OF CANADA IS VERY REAL

"The problem of providing a domestic supply of iron ore for our furnaces, is very real, and immediately pressing for a solution."—From the report of Ontario Iron Ore Committee.

BOUNTY TO STEEL INDUSTRY FULLY JUSTIFIED IN WAR

When U. S. Cut Off Supply Canada's Furnaces Proved Equal to Occasion

Bounties paid in the past to develop the iron and steel industry of Canada were justified to the fullest extent by the way the industry rose to meet the need of the Empire during the war. As the iron ore committee remarked in its report, the development of the industry was indeed fortunate, because, during the war, production of munitions was a matter of supreme importance to the allied cause and to the economic position of Canada.

It was not, however, until the United States joined the Allies and requisitioned all the steel their furnaces were capable of producing that the Canadian industry rose to its highest pinnacle.

Canada was immediately placed in a position where she must produce her own steel, or admit her inability to produce munitions. This type of steel had never been attempted in Canada and many, with no mean knowledge of the industry, said it was impossible. However, where there is a will there is a way, and Canadians did produce the steel, and munitions continued to go forward to the end of the war.

It was during the war that the old Helen mine, the only producer in Ontario, was exhausted, and the siderite deposit of the Magpie nearly so. The Moose Mountain Company closed down in the financial depression which followed, and the Magpie closed in 1921, thus bringing to a close the iron mining industry of the Dominion. Since that time Canadian furnaces have drawn their supplies entirely from foreign countries.

WILL CONSIDER THE REQUEST FOR BOUNTY

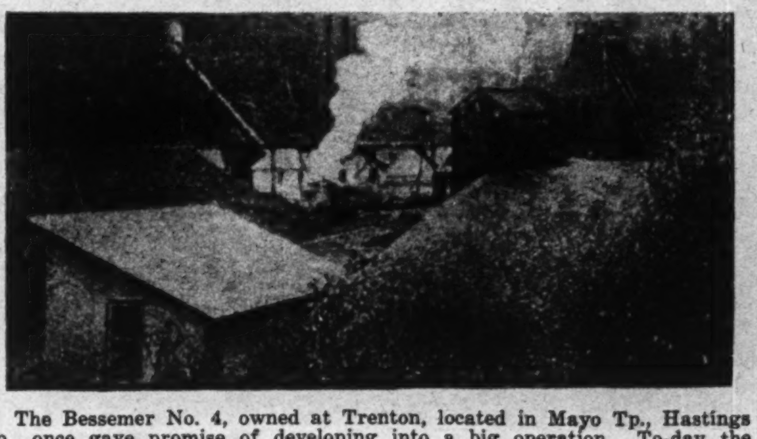
B.C. Minister of Mines Has This Assurance From Ottawa Administration

VICTORIA.—Recognizing the extent and value of the iron deposits of British Columbia, and determined to provide sufficient inducement for their conversion into commercial wealth, the provincial government has voted $2,000,000 to be used for bounties on pig iron produced in the province.

The action of the government was largely the result of popular feeling in favor of development of the iron industry in the coast province. The Coast Range Steel Company, promoted by H. J. Landahl, with considerable backing from Old Country capitalists, urged the government to act in conjunction with the Dominion and Federal governments in guaranteeing bonds for the establishment of an iron and steel industry in British Columbia, but, in view of opposition to this plan, led by several business organizations, and the Mining Institute, it was decided that, rather than guarantee the bonds of a private corporation, the government should introduce a bounty system.

In announcing the government's decision, Hon. William Sloan, Minister of Mines, stated that an effort would be made to obtain similar Federal aid for the industry in British Columbia He said that he had been given assurances that the Ottawa administration would give satisfactory consideration to the proposal.

Low Grade Deposits of U. S. Producing While Canada's Are Completely Neglected



The Bessemer No. 4, owned at Trenton, located in Mayo Tp., Hastings Co., once gave promise of developing into a big operation. To-day the plant is idle.

When They Had to, New England Found They Could Use Own Ores

The position of the steel industry in the New England States until recently was identical with the position which now exists in the Dominion of Canada. In the early days of the industry the only ores available were the magnetites of the New England area. Some of these ores contained high sulphur, but with comparatively good equipment the operators continued to make progress until the discovery and development of the higher grade, easier-produced ore, of the Lake Superior district. Then they stopped producing. This situation lasted until keen competition and high transportation costs placed the Eastern furnace operators in a rather difficult position. They at last turned to the local deposits. They thought of sintering, and so successful has their effort been that the use of lake ores has been largely eliminated, and the furnaces are being burdened in some places with all raw magnetite, in others with magnetic sinter. Thus. the battle for survival forced them to abandon the policy of following the line of least resistance and develop their own resources.

PROMISING BODIES OF LOW GRADE ORE ON ALGOMA CENT.

Great Tonnages Are Seemingly Available About 64 Miles N. of Soo

Considerable interest was aroused last fall by the finding of a large body of silicious magnetite at mileage 64, Algoma Central Railway. G. W. McLeod, of The Soo, in a report on the property, found that the body from the bottom of the valley to the top of the range varied from 250 to 700 feet. On a basis of 400 feet vertical depth there would be 50,000,000 tons averaging 34% fe. To make it low enough in silicia it would be necessary to concentrate to 60% fe.

A. Hasselbring, of The Soo, in a report on an adjoining Algoma Steel group of 11 claims, estimates 15,000,000 tons of magnetite per 100 feet of depth, while on the adjoining Hillier claims the estimate is 12,000,000 tons per 100 feet depth. An analysis of the above show iron 35%, silica 48%. sulphur .04%.

Minnesota Taxes Ore Raised to the Surface

Taxation is a great problem in iron ore mining in Minnesota. In a letter to THE FINANCIAL POST the Minnesota Tax Commission outlined the method employed as follows:

"In this state there is an occupation tax imposed on the business of mining. For the tax covering operations for the year 1922, we determined the value of 28,671,346 tons of ore where the same was brought to the surface of the earth to be approximately $98,500,000.00. From this value deductions were made for mining costs. No deductions were made for general overhead, interest on capital invested nor was any allowance made for depletion of capital represented by reduction of ore reserves. The deductions made approximate 80 per cent. of the total expense incurred. The semi-net profit which was taxed approximated $57,000,000.00."

MINERS WATCHING SHOAL LAKE CAMP

Attempted Come Back of Old Area—Interesting Prediction as to Future

Will Shoal Lake come back?

This question refers to one of Ontario's oldest mining camps. This gold area with Mines Centre as the town is not far from the Twin Cities. It has been dead for a long time, but is coming up again. The known mineralized area is six by four miles.

Exploratory work carried on by prospectors and mining companies, back in the early nineties, exposed scores of veins carrying free gold, and hundreds of adventurers were attracted to Shoal Lake in quest of fortunes. Several companies organized and carried on development work for a time, but cost of taking machinery 110 miles overland from the nearest railway proved too heavy a burden for most of them and, with the collapse of the gold boom, which raged from the Lake of the Woods to the White River, general abandonment followed.

Interesting reports on many of the properties are available. They show interesting conditions. Just recently British Canadian Mines were organized to take hold of the famous old Foley, famous because of its rich ore and the fact that it is said to have the truest "Fissure" veins of any mine in the north. It is going ahead in the systematic way. Its operations will be carefully watched.

Mr. Allen, of the News-Chronicle, Port Arthur recently stated editorially that it is the belief of those who are intimately acquainted with the Shoal Lake gold field that it will ultimately become one of the wonders of the province, but ere this can take place a great deal of money will necessarily have to be spent in preliminary work. Already, as a result of one company's operations, other owners are pricking up their ears. and it will be no strange happening if Shoal Lake should soon be re-echoing the sound of blasting and hear the crunch of crushing machines and the thud-thud of stamps pounding to fine sand gold-bearing quartz.

Consumption on Increase While U.S. Imports a Considerable Tonnage — A Possible Market for Any Canadian Surplus.

The estimated iron ore reserve of the Lake Superior ranges is 2,860. 841,833 tons of merchantable ore, as shown by the following table, and after deducting the 1920-21 production.

The question that naturally follows is: How soon will these reserves be depleted? So long as these Lake Superior ores are available on the open market, beneficiated ores, prepared and produced with greater effort, must compete against the cost of production of naturally merchantable ores.

Statistics indicate a constantly increasing per capita consumption of iron ore, but with export business in a somewhat demoralized condition, it would be difficult to predict this increase. Moreover, the extraordinary conditions during the war period must be given consideration. For these reasons, in calculating the average consumption of iron ore in Canada and United States, under present conditions, the iron ore committee confined its survey to the records of the last three years available, viz., 1919, 1920, and 1921.

Iron ore produced by United States mines, outside the Lake Superior district, follows:

	1919	1920	1921
New Eng.	14,893	10,339	4,100
New Jersey	404,428	431,567	58,589
New York	871,495	920,009	469,988
Penna.	827,167	734,383	146,649
Georgia	71,224	104,611	5,556
Alabama	5,053,035	5,894,011	2,876,141
N. Carolina	56,778	71,810	2,583
Tenn.	282,792	375,538	25,709
Virginia	305,096	320,924	74,021
Missouri	53,856	54,994	36,550
Other States	694,851	741,330	439,621
Total	8,438,619	9,659,416	4,139,147
Yearly average			7,412,394

Iron ore produced by all mines in Lake Superior district:

Range	1919	1920	1921
Marquette	2,992,212	4,608,323	1,116,560
Nenominee	4,446,417	6,569,384	1,584,403
Gogebic	6,229,560	8,763,332	2,336,493
Vermilion	929,049	1,007,435	869,313
Mesabi	32,003,169	37,147,705	16,349,896
Mayville	92,819	78,544	52,413
Baraboo	......	51,027	......
Cayuna	1,859,200	2,191,528	489,500
Ttl. U.S.	48,552,421	60,417,278	22,798,578
Canadian	167,904	114,189	53,227
Gd. total	48,720,325	60,531,467	22,851,805
Yearly average			44,034,532 tons

Imports of iron ore into United States from all countries other than Canada, figures by United States geological survey, shows there is a possible market for a surplus of Canadian ores if one is produced:

Range	1919	1920	1921
Cuba	321,753	889,852	123,222
Spain	63,737	69,915	40
Nor.-Swed.	67,966	45,689	143,234
Other Eur. & Eng.	6,556	4,696	2,344
French Africa	3,981A	193,829B	22,696C
Other Countries	85	15,391	14,457
Total	464,078	1,239,372	305,993
Yearly average			669,814 tons

A—British West Africa.
B—Includes 34,940 from Morocco.
C—Includes 14,360 from Morocco.

Imports of iron ore into Canada from all countries other than the United States. Figures from the Department of Statistics, Ottawa:

	1919	1920	1921
Newfoundland	529,232	616,287	137,032
Others	......	22,009	7,123
Yearly average			437,228 tons

The iron ore reserves of Lake Superior district of the United States, Jan. 1, 1920, estimate by R. C. Allen, silicious ores not included, Bessemer and non-Bessemer ores include present grade only:

	TONS ASSURED ORE			TONS PROBABLE ORE			TOTAL	TOTAL	GRAND TOTAL
Minnesota	Bessemer	Non-Bessemer	Total Assured	Bessemer	Non-Bessemer	Total Probable	Bessemer	Non-Bessemer	
* Mesabi Range	330,431,666	938,634,349	1,269,066,015	99,129,500	281,590,330	380,719,800	429,561,166	1,220,224,649	1,649,785,815
** East Mesabi	......	......	......	300,000,000*	......	300,000,000*	300,000,000	......	300,000,000
*** Vermilion Range	15,000,000	Negligible	15,000,000	15,000,000	Negligible	15,000,000	30,000,000	......	30,000,000
Cuyana Range	Negligible	55,846,435	58,846,435	Negligible	100,000,000	100,000,000	100,000,000	155,846,435	155,846,435
Total	345,431,666	994,480,784	1,339,912,450	414,129,500	381,590,300	795,719,800	759,561,166	1,376,071,084	2,135,632,250
† Wisconsin									
Gogebic-Florence									
Mayville-Baraboo	2,500,000	19,000,000	21,500,000	15,000,000	41,000,000	56,000,000	17,500,000	60,000,000	77,500,000
†† Michigan									
Gogebic Range	14,,384,638	50,178,365	64,563,003	70,000,000	180,000,000	250,000,000	84,384,638	230,178,365	314,563,003
Marquette Range	8,504,258	62,129,111	70,633,369	15,000,000	100,000,000	115,000,000	23,504,258	162,129,111	185,633,369
Iron River Range	......	54,632,863	54,632,863	......	150,000,000	150,000,000	......	204,632,863	204,632,863
Crystal Falls	......	......	......	......	......	......	......	......	......
Menominee Range	2,115,811	7,147,809	9,263,620	2,000,000	15,000,000	17,000,000	4,115,811	22,147,809	26,263,620
Total	25,004,707	174,088,148	199,092,855	87,000,000	445,000,000	532,000,000	112,004,707	619,088,148	731,092,855
Grand Total	372,936,373	1,187,568,932	1,560,505,305	516,129,500	867,590,300	1,383,719,800	839,065,873	2,055,159,232	2,944,255,104

* Assured Ore Mesabi Range based on estimates of Minnesota Tax Commission. R. C. Allen adds 30 per cent. for probable ore.

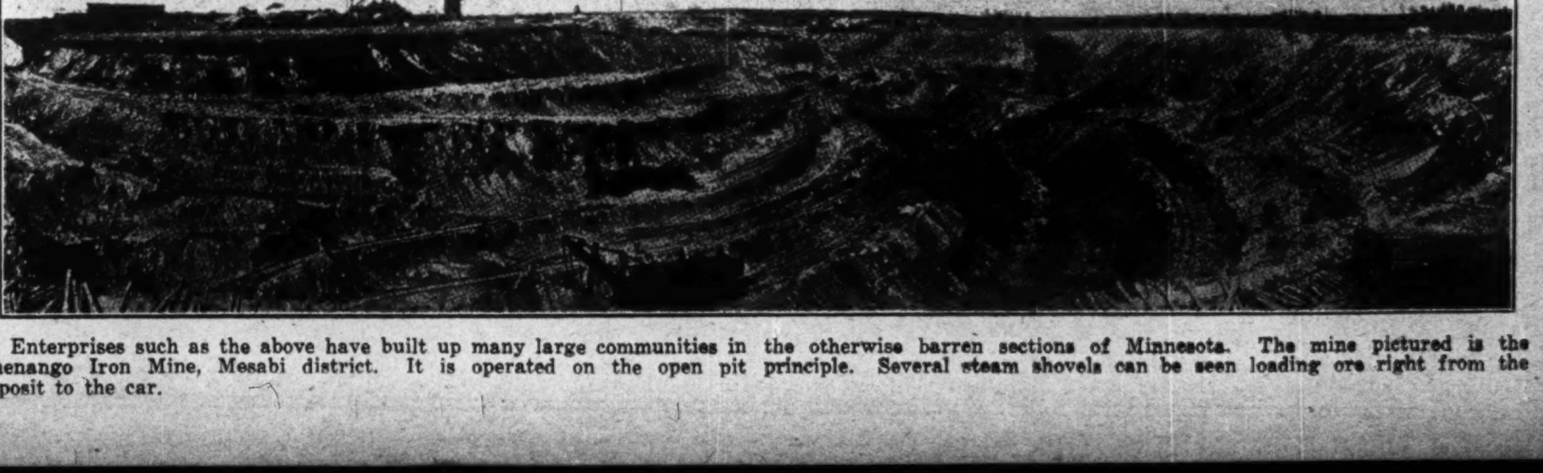
** East Mesabi Magnetite Concentrates above depth of 50 feet in present explored area, by W. G. Swart. (Also quoted in Iron Trade Review.)

*** Assured Ore by Minnesota Tax Commission. Prabable Ore by R. C. Allen.

† By W. O. Hotchkiss, State Geologist of Wisconsin.

†† Assured Ore is estimate by Michigan Tax Commission of "Developed and Prospective" Ore. Probable Ore by R. C. Allen. (Dr. C. K. Leith estimates for Gogebic, in addition to "Present Reserves" 250,000,000 tons above 3,000-ft. level.)

An Iron Mine in Minnesota Developed by Steam Shovel



Enterprises such as the above have built up many large communities in the otherwise barren sections of Minnesota. The mine pictured is the Shenango Iron Mine, Mesabi district. It is operated on the open pit principle. Several steam shovels can be seen loading ore right from deposit to the car.

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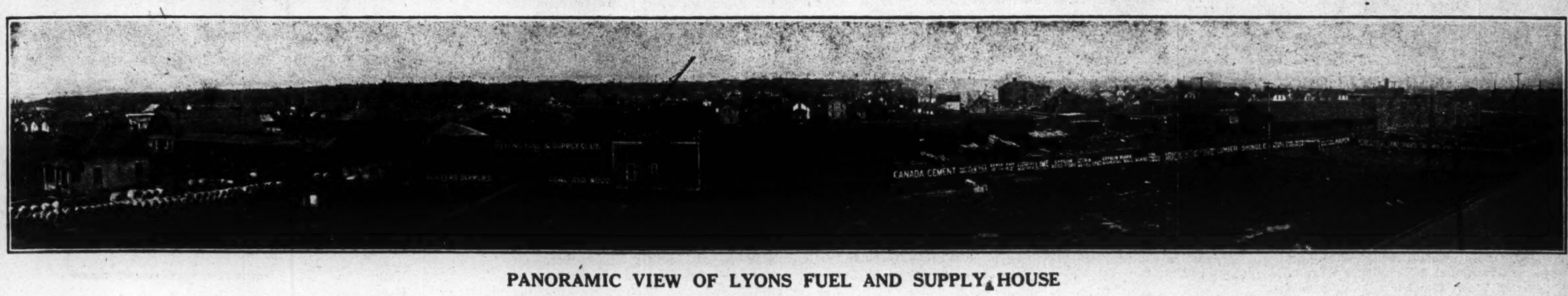

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Sand Mould Brick
Fire Brick (Standard or Special Shapes)
Fire Clay
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Tarred Felt
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Gyproc Board
Beaver Board
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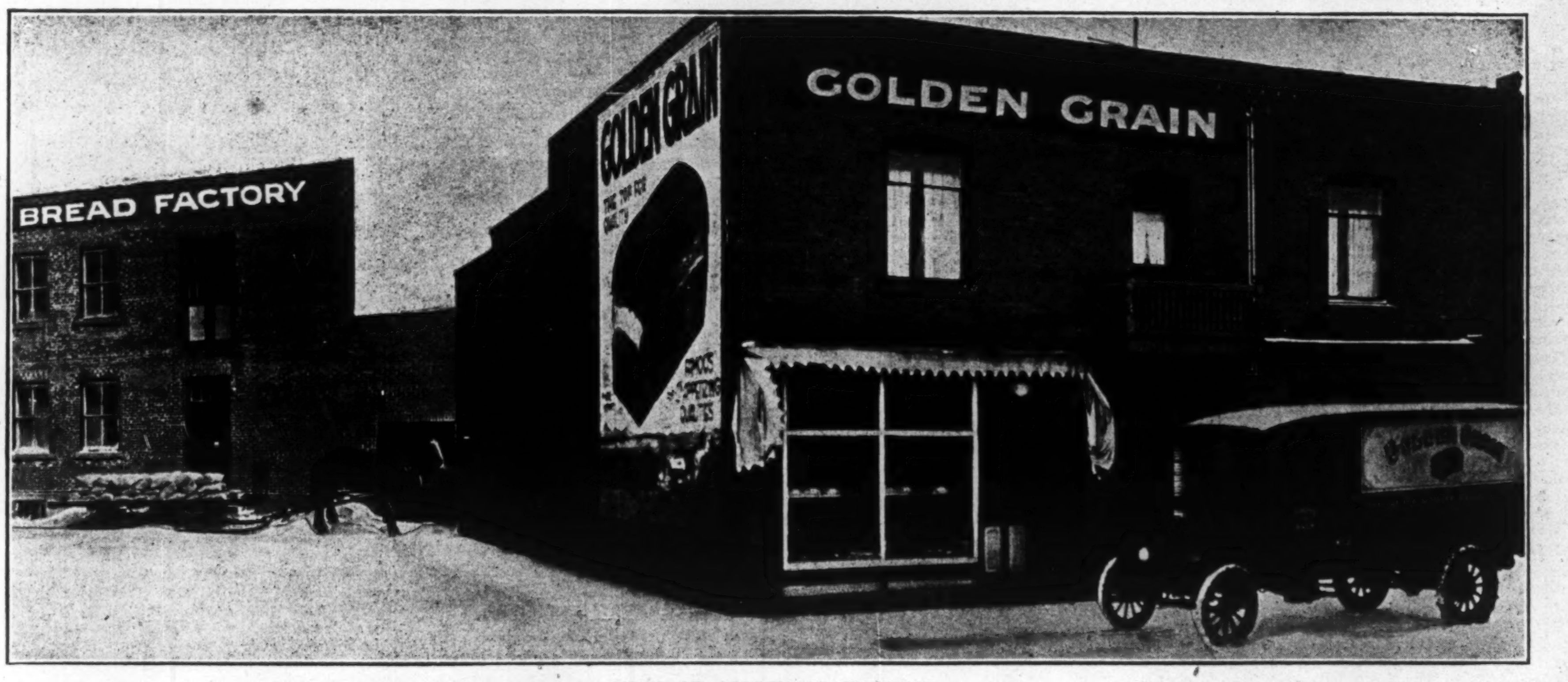

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NICKEL-COPPER PRODUCERS HAVE PROSPEROUS TIME

With Added Output of B. A. N. C., Output is on a Pre-War Basis

MANY USES OF NICKEL

Has Aided Big Sudbury Mines and Generally Prosperous Condition Exists There

Nickel-copper production of the three Sudbury mines is now at a rate that the gold producers of Ontario hope to maintain this year around $25,000,000. Operations of two of the concerns, International and Mond, are on a pre-war basis, and there is the addition of British-American, a product of the war.

International Nickel, with it famous Creighten mines, sets the leadership in production and development as well. Ore, which grades six and seven times higher than much that has been hitherto mined, has been struck. The average grade per ton hoisted is around 5 per cent., with 75,000 tons going up monthly.

Gradually new uses for nickel are being evolved, and it is hoped that in time the demand will be such as will keep the mines going at capacity. Over 1,000 men are employed by the International Nickel, and the value of the nickel-copper production is on a basis of around $15,000,000 yearly.

Mond Nickel is controlled in England. Its mine at Coniston, where its war-time production came from was recently abandoned and the whole enterprise moved to a new working. Mond production is around 26,000 tons monthly. The company is now carrying on construction to increase its output. The nickel matte is shipped to Wales, where the company has its refinery.

A War Development

British-American Nickel, which just got nicely going as the war ended, is operating two blast furnaces. Its refinery is near Ottawa. Its production is about the same as the Mond, each producing about $5,000,000 annually.

The production of the Sudbury mines was recently estimated at $258,750,000 to date, made up of $185,000,000 nickel, and $70,000,000 copper and $3,750,000 platinum. As a result of conditions at the mines, business in Sudbury is good.

Some operations in precious metal mining are being carried on in the district. Wanapitae to the east has attracted a great deal of attention as has also the Howery Creek section. where the Bosquet and Howery Creek Gold are located. The latter is a gold-silver-arsenic proposition.

Geological conditions all along the Algoma Eastern are promising for the finding of precious metals, and considerable activity is looked for in that section.

VAST DEPOSITS OF IRON ORE REPORTED ON 35 YEARS AGO

Then Believed "of Enormous Extent," but Ranges Not Yet Tested

Canada is not producing a pound of iron ore to-day, yet there are known deposits of tremendous tonnage of medium grade, and a sincere belief that there are vast deposits of high grade to be found. All that is wanted is a little real exploration. The optimism about Ontario's deposits is old, but the necessary work to test out some of the ranges has never been undertaken. Thirty-five years ago a royal commission on mineral resources of Ontario reported that the iron ore deposits of the province were then believed to be "of enormous extent" and were such as to enable the province to build up an industry of immense value. One of the commissioners, who was a practical mining man, declared of the iron ore resources of Ontario that: "The wealth yet to be mined is simply incalculable. There remains in nature's storehouse of underground deposits treasures which, if a business was once opened up for their working and manufacture in various ways, would bring this province into a prominence that no other commercial enterprise could approach."

Fruther attention was directed to the iron ore of Ontario in a valuable report made in 1908 by the Ontario department of mines. That report stated that:

> "New deposits of valuable ore have recently been discovered, and it is within reason to suppose that other equally valuable finds will be made in the future. Millions of dollars have been expended in a systematic search for ore bodies upon all the other iron ranges of Lake Superior south of the international boundary. Nothing approaching this expenditure has ever been made in prospecting the iron formations of Ontario, and who knows what is contained in that vast and practically unexplored region between Lake Superior and Hudson Bay?"

Prof. Donald, McMaster University, in a book on the iron and steel industry of the Dominion, published in 1915, said:

> "Probably no other part of America can claim so great an extent of rock so favorable for the occurrence of ore deposits as Ontario. Northern Ontario contains rock formations similar to those found throughout Michigan, Wisconsin and Minnesota, including iron series that are in many cases identical with those associated with the ore bodies of the American ranges."

Iron Ore Bounty Will Not Solve Canada's Problem Without Real Effort to Explore Vast Ranges

(Continued from page 25)

quickly or easily—a most extraordinary amount of effort and immense sums of money have been spent in locating them, and even chance or luck would appear to have at times played a part in their location.

As the Mesabe district surpasses any other U. S. Lake Superior district, in fact all other Lake Superior districts, in present production and importance, a closer comparison of this district with the recognized Upper Huronian (Animikie) sector on the Canadian side seems to be the most pertinent line of inquiry for Canadians under existing conditions. To that end a more detailed description of the Mesabe district and range. and its characteristics, is a first essential.

The main topographical feature of the Mesabe district is a ridge or "range" parallel with the longer direction of the district and roughly parallel with the shore of Lake Superior and known as the "Giants" or Mesabe range, Mesabe being the Indian word for "giant." The granite of this ridge is called in the literature and shown on the maps of the mining district of Minnesota as Giants Range Granite.

The succession of formations in the district required for comparison, starting with the Giants range granite, as the top horizon of the Lower Middle Huronian series and the base of the Upper Huronian (Animikie) series, and coming southwards towards Lake Superior, is as follows: an horizon of quartzite of varying thickness and missing in places; the iron member or horizon of iron formation; an horizon of slate with intrusive sills of diabase and acidic and basic intrusive rocks.

Overlying this Upper Huronian series (Animikie group) rests the Weewanawen series including the great Duluth gabbros and embarass granite.

The iron member of this district is from ¼-mile to 3 miles wide, with an average of about 1¼ wiles in width—this width represents its exposure, when the drift over it is uncovered, between the quartzite or granite as the case may be on the North, and the slate or intrusive sills of diabase on the south. The iron member roughly parallels the Giants granite ridge and in all is about 110 miles long. It is composed of sedimentary rocks which have a dip, for the most part, towards the south of from 5 degrees to 20 degrees from the horizontal. The sedimentary rocks comprising this iron member consist of greenalite and carbonate rocks, ferruginous cherts and slates, and in places mainly in the middle zones, of iron ores.

The surface area of the iron ores is only about 5 per cent. of the total area of the iron formation, and a still smaller proportion of the formation itself. The iron ores are chiefly located in the central parts from west to east of the member; at the west end the member pinches out and slates and giants granite come together—at the east end the Duluth Gabbro over-runs the member and appears to preclude the formation of merchantable ore.

The Vermillion district lies between the Mesabe District and the Canadian boundary, but farther back, the giants grnite lying in the Vermillion district south of the iron member instead of north.

Between the Mesabe district and the Canadian boundary the iron member of the Upper Huronian (Animikie) series appears to be practically obliterated by the Duluth Gabbro until near the Canadian boundary in the Gunflint region where the Duluth Gabbro begins to recede and a recurrence of much the same conditions as exist at the east end of the Mesabe reappear on the United States side of the international boundary.

Turning now to the Canadian sector of this Upper Huronian (Animikie) series, between the Gunflint region referred to, and Loon Lake, for the purpose of comparison.

Here authoritative data are very scarce. At the extreme Easterly Loon Lake end, a few drill holes were put down some years ago, and again in 1923, but the record of these is the sole possession of the owners and drillers.

With the exception of these few drill holes at the Loon Lake end there is no record of any drill holes in any part of the Canadian sector.

At the extreme west end of the U. S. side at, and in the neighborhood of, the Paulson Mine, some drilling has been done and the commencement of the Canadian sector on the U. S. side has been established by the exploration and drilling in this region.

In the 20th, 1911 annual report of the Bureau of Mines for Ontario, at page 119, appears a report of N. L. Bowen, geologist, on the silver formations in the township of Strange, Lybster, Gillies and Scoble. an area through which this sector runs a little west of the central portion from west to east of the sector.

While this report deals with the area as a silver-producing area the geological data given by him throw a good deal of light on the general geological situation in this part of the Canadian sector, especially when examined in connection with the map accompanying his report.

These geological data establish:

1. That in the portion of the Canadian sector running through the area covered by his report there is continuous iron member with an average dip of from 5 degrees to 20 degrees to the south.
2. That bordering this iron member on the north and paralleling the member and roughly paralleling Lake Superior is a range or ridge of granite which in another part of the Sector, a little west of the area covered by Mr. Bowen's report, has been identified by later geologists as the Giants Range Granite.
3. That the southern boundary of the iron member consists of an horizon of slate with intrusive sills of diabase through the slate and between the slate and the iron member.
4. That the iron member is from one-half to 3 miles wide and average about 1½ miles, and follows a course about west-southwest and east-northeast.
5. That the iron member is composed of greenalite rocks and ferruginous cherts and slates.

Comparing the data concerning this portion of the Canadian sector obtained from mere surface observation with the known data of the Mesabe Range only two points of difference are noted, otherwise there is practically complete similarity.

One of the points of difference is the absence of the quartzite between the granite and the iron member. The quartzite is, however, sometimes missing in the Mesabe, and the fact, noted by Mr. Bowen, that the contact between the granite and the iron member is a fault contact in the area under observation by him, may afford an explanation of this difference, when the nature and extent of the fault is known.

No Proper Testing

The other point of difference is that no iron ores of shipping grade are mentioned by Mr. Bowen, but his only opportunity for discovering iron ore bodies was his surface observation of the prominent characteristics of the area as a whole, an area in which there was not even a test pit or foot of stripping for iron, the test pitting having been done for silver chiefly in the slate horizon south of iron member.

One other feature of the Mesabe iron range before instituting a comparison with another portion of the Canadian sector.

The iron ores of the Mesabe mines. according to U. S. geologists, are the result first of the alteration of the original greenalite rocks and argillaceous sediments of shaly or slaty cleavages into ferruginous cherts or ferruginous shales or slates, and shales into ore, resulting in a great measure of breaking down of the rocks and soft ores usually.

In the years 1922 and 1923, the author of this digest and J. McGugan have been engaged in the surface exploration of a portion of this Canadian sector about four miles long, situated about six miles west of the area covered by Mr. Bowen's report.

This four-mile portion possesses the same general geological characteristics as the portion covered by Mr. Bowen's report, and averages about 1½ miles in width from north to south. For surface exploration purposes it has the advantage of less drift overburden.

As a result of this surface exploration, aided by the greater area of surface exposures, it has been demonstrated by these explorers that the process of forming ore bodies peculiar to the Mesabe Range has been repeated in the portion explored.

Near the granite, test pits have exposed, at the surface, horizons or seams of broken-down rocks of steam shovel consistency where the greenalite has been altered to chert and the chert into an ore of almost, but not quite, merchantable quality. The silica is too high at the surface around 23 per cent., and the iron content too low, around 40 per cent.. otherwise the ore is excellent. At the surface, exposed by this pit, the leaching of the silica in the secondary alteration stage has not proceeded quite far enough to bring the ore to the standard Lake Superior merchantable grade.

Some Showings Examined

Another seam is exposed on the extreme south of the iron member, near the intrusive diabase sill, as the result of a fault which put the seam at a dip of about 70 degrees from the horizontal, in which the original rock, a carbonate, has been altered to a chert and broken down by later alteration to a steam shovel consistency but at the exposed surface not quite sufficiently altered to reach the above mentioned merchantable ore stage—the average iron content being around 40 per cent. and the silica too high. not yet at the exposed surface sufficiently leached. Individual lenses run around 50 per cent. iron content.

A side hill test pit near the middle of the member discloses on the face of the pit lenses completely altered into a very high-grade ore, 60 to 65 per cent. iron content, intermingled with lenses less altered, the whole again, at this surface exposure, falling a little short of a shipping material.

Along an exposed ridge near the central portion of the iron member. stretches a very large quantity of material with practically no overburden, which, at the surface, possesses features which seem just a little peculiar to itself, viz: a lime content above the average, more or less mechanically rather than chemically combined, this lime content running as high as 23 per cent. lime and averaging around 15 to 20 per cent. The lime content of this material is so high that even with its lower iron content it would no doubt be furnace material, as it appears on the surface under different marketing conditions than those which exist on Lake Superior.

In other test pits the original argillaceous sediments of slaty cleavages are exposed, altered into ferruginous shales or slaty taconite, and a very considerable number of strata or lenses into standard iron ores, but at the surface where exposed the alteration has not been sufficiently uniform in all the lenses or strata to bring the whole mass into the category of merchantable ores, according to present marketing standards.

The whole member, 1½ miles wide by 4 miles long, is one solid mass of iron formation, and around 700 feet deep on its south boundary near the bordering diabase. The test pit referred to near the granite is only about 8 feet deep and does not begin to approach the bed of the iron formation. so that the nature and effect of the fault at the granite is not known. Nothing but the surface has been reached or exposed in any of the pits, and only a few isolated spots in this surface. The story of the portion under exploration has not been told by what has been done; it still remains untold; to unfold it by surface pits and shafts will be slow and costly; diamond drilling is the only efficient means.

The middle zones of the Mesabe carry most of the Mesabe ores. There is no actual demonstration as to what the middle zones of this portion of the Canadian sector, under exploration by these explorers, carries, but the surface evidence holds the promise of ores at these middle zones, and of the possibility of the history of the Mesabe in its more favored portions being repeated in this Canadian sector. Though separated by an intermediate area affected by the Duluth Gabbro from the Mesabe, the Canadian sector is beyond peradventure and a recurrence of the Mesabe iron-ore-producing member under Mesabe conditions.

Available Data Scanty

This constitutes the information available to date respecting this Canadian sector of this Upper Huronian iron member, the U. S. sectors of which were, in 1920, responsible for 52 millions out of the 67 millions of tons of iron production in the U. S.

The information available is scanty, owing to the absence of mining this sector and the little exploration done, and the total absence of drill holes, except at the extreme east (Loon Lake) end, but the information, scanty as it is, shows that as the effect of the Duluth Gabbro loses itself after the Canadian boundary is crossed and the central portion of the Canadian sector is approached, the sector takes on all the characteristics and promises of the central portion of the Mesabe, and that the sector extends around the west-northwest shore of Lake Superior, a distance of over 100 miles.

Moreover, the fortunes of Canada in respect of iron ore in the Lake Superior district are not bound up in this one almost overlooked area alone important in its potentiality though it may be.

It will have been observed that in the U. S. territory each series below the Upper Huronian—that is the Middle Hunonian, Lower Huronian, Laurentian and Keewatin—has an iron-bearing member some place. It should be added that some of the very richest mines in the United States Lake Superior region have been found in these very iron members, though the volume of production has not been so great as in the Upper Huronian.

It is just at this point that it is well for Canadians to note the difference between the Canadian and United States situation as to these older series.

The territory in which these older series appear in the States of Michigan, Wisconsin and Minnesota, constitutes a rather narrow fringe—geologists call it a projection only, into these states from Canada of the main area of these older series.

That each of these older series carries an iron member in the United States and that in these iron members bodies of iron ore are in places secreted is disclosed and proved as a result of the money which has been spent on the limited exploration of these iron members in United States territory.

That iron members exist in the same series in Canada is also known from mere surface observation—that these iron members are spread over a very much greater area, very much more frequently in evidence in Canadian territory, is also known. That in a few places where intensive explorations have been conducted these iron members have had secreted in them iron ore bodies, as, for instance, at Antikokan and at the Helen mine, separated by hundreds of miles, is also known.

With these known facts what reason is there for assuming that the iron members exhibited in these series in so many places in the Canadian Lake Superior region, which have not been intensively searched. do not contain bodies of iron, or for acting as if the presently known exhibitions of these iron members close the book, when there are in fact many more of much greater extent covered up from surface observation? Unless nature has perpetrated a most singular and continuous set of freaks there are undoubtedly, many more mines and much greater bodies of ore in the iron members in the much greater areas of the main bodies of these older series in Canada than in the mere projection of these series into the United States.

Surveying the situation as it exists to-day, the thing which stands out most prominently, however, is, in the light of the present prominence and wonderful production of the upper Huronian series in the United States, and in the light of the knowledge relating to the Canadian sector of these series available for so many years, and of the proximity of this Canadian sector to lake and rail throughout more than 100 miles of its length, that no Canadians should have made any real effort to prove or disprove its potential national wealth.

Before closing this outline or digest there is another aspect of the situation which should be touched upon.

Significant Facts

Furnace and marketing practice became established in the United States as a result of pre-established conditions.

Before Lake Superior ores were an accomplished fact there were Eastern ores, and furnaces were an established institution in the East, where ore, coal and limestone, were readily assembled, and markets for the finished products were readily accessible. The discovery and use of Lake Superior ore was of gradual accomplishment and subservient to the continued enlargement of Eastern furnaces. The conditions of furnace practice and ore marketing founded on an Eastern assembly of ore, coal and limestone, in other words the conditions created by the cost of transportation from Lake Superior ports to Pittsburgh furnaces, has continued to this date.

The result is a market standard for ore which calls for only high grade ore in the Lake Superior market.

The contra-wise situation in Alabama will illustrate this feature still more clearly. In that state, which has a very considerable furnace production, the ore is at hand in proximity to the furnaces, and while 50 per cent. ore is substantially the minimum grade for the Lage Superior market, much ore below $35 and not much above that grade is marketed in Alabama.

There are some Eastern Canadian furnaces, but the furnace development to date is very limited in Canada, and not all Eastern (Sault Ste. Marie can hardly be called Eastern) and no such established interests exist in Canada as existed in the United States during the period of growing use of Lake Superior ore. Moreover, the development of the Canadian West is paralleling more closely the development of the Canadian East than was the case in the United States.

From this feature it may follow that there is more possibility of such evolution in Canadian furnace practice and the marketing of Canadian ores as will permit of an earlier Canadian use of the known surface deposits in the Canadian Lake Superior district than if the marketing were always to depend on the United States Lake Superior market alone.

These known surface deposits reach a most considerable magnitude and possess qualities which appear to make them fully the equal of very much of the material on which the iron and steel industry of the world is founded.

These surface deposits, are, moreover, in view of the greatness of the area through which they are distributed. and their extent and prominence, the strongest possible earnest of extensive standard ore bodies when the iron members bearing them are intensively searched.

Mr. Woodbridge's comment follows:

Paragraph 3—There is one general difference, the greater glaciation on the Canadian side. This is more important, mineralogically, in some areas than in others.

Paragraph 6—"Gabbro," and the extensive lava flows in which occur most of the copper mines of Lake Superior.

Paragraph 37—The length of the Mesabi, in Minnesota, is about 140 miles, that is from Gunflint Lake to the Mississippi. Of course, some of this is covered, as most of the distance between Gunflint and Birch Lakes, but it is there nevertheless.

Paragraph 68—While it may be unnecessary to mention it, there is the possibility of a difference in the two sections by just the preponderance of glaciation that may have occurred in that discussed at length by you.

Paragraph 81—While Alabama ores are much leaner than Lake Superior shipments, they make up for this by: a, their dryness. b, their lime, c, the cheap assemblage of materials necessary for iron.

I think that this digest would have quite an effect in inducing Canadian capital to undertake that exploration. It has been prepared with great care and I know that it is both logical, consecutive and convincing.

WORLD'S RESERVES OF IRON ORE HEAVY

Cost of Transportation, However, Holds Possible Market to Small Area

Perhaps no metal in the earth's crust has a more general distribution than iron. However, deposits of merchantable iron ores, or iron ores that will permit a profit to be made from their commercial reduction to the metallic state, are comparatively scarce.

At the World's Geological Congress, held at Stockholm, Sweden, in 1920, the known world's deposits of merchantable iron ore were listed as follows:

	Actual Reserve Tons	Potential Reserve Tons
Europe ..	12,032,000,000	49,029,000,000
America .	9,855,000,000	81,822,000,000
Australia	136,000,000	69,000,000
Asia	260,000,000	457,000,000
Africa ..	125,000,000	Enormous

The chief centres of actual ore reserves were indicated as follows:

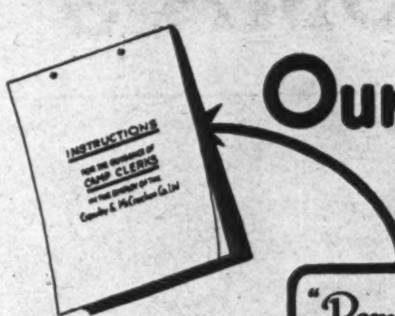
	Tons
Germany, France, Luxemburg and Belgium	1,850,000,000
North Sweden	673,000,000
Newfoundland	1,960,000,000
North America (Lake Superior Region)	2,000,000,000
Cuba	454,000,000
xSouth America (Province Minas Geraes)	3,055,000,000

x Potential.

It will be seen at once that the Lake Superior deposits are comparatively large. Now the cost of transportation involved in the process of mining, furnacing, and laying down the finished article where it is to be used, absolutely limits the area for distribution of the ore from any iron deposit. Under present conditions Ontario is well within the limits for the commercial distribution of ore from the Lake Superior deposits. If rail rates were measurably reduced, some of th beneficiated magnetites from the New England States, might gain entry to the Ontario markets. If the St. Lawrence Deep Water-Ways scheme would succeed, a certain tonnage of Wabana ore would undoubtedly be used in Ontario furnaces. But those possibilities are at the present time somewhat remote, says the Ontario Iron Ore Committee.

CANADA'S MOUNTAIN PEAKS

There are 147 peaks over 10,000 feet high in the Canadian Rockies, nearly all of them possessing glaciers.



"We Feed Your Men"

Our Service Code

"Remember that we please the camp owner by pleasing his men, and on the men, our job and yours depend."

We Mean What We Say

Good Company

From amongst a large list of enthusiastic clients, we name only a few, representative of each industry:

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Night Hawk Peninsula Mines, Ltd.
British-American Nickel Corpn.
Mond Nickel Co.
Shawinigan Engineering Co., Ltd.
Canadian Pacific Railway Co.
Canadian National Railways.

THE success of any business is in direct proportion to its ability to render service to the community.

Crawley & McCracken Co., Limited, spare no effort to make their service the best of its kind. The following is one of the first principles laid down in their Book of Instructions to employees:

"Our success and that of our employees depends upon the kind of service the men who live in our camps get. We insist that they must all have a square deal, which means giving them every legitimate service—not unreasonable service, but the same courtesies the head of the business would extend if he were personally in charge of the camp."

Crawley & McCracken Co., Limited
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Lake Superior---An "Ocean" Port of the Near Future

Western Canada's
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Economic Outlet
to Europe

Central Canada's
Greatest
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Site

One of Canada's
Greatest
Pulp and Paper
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The World's Greatest Wheat Port

The natural, most feasible and economic gateway, manufacturing and distributing site to a developing inland Empire with a territory equalling 12 European Countries or 21 American States.

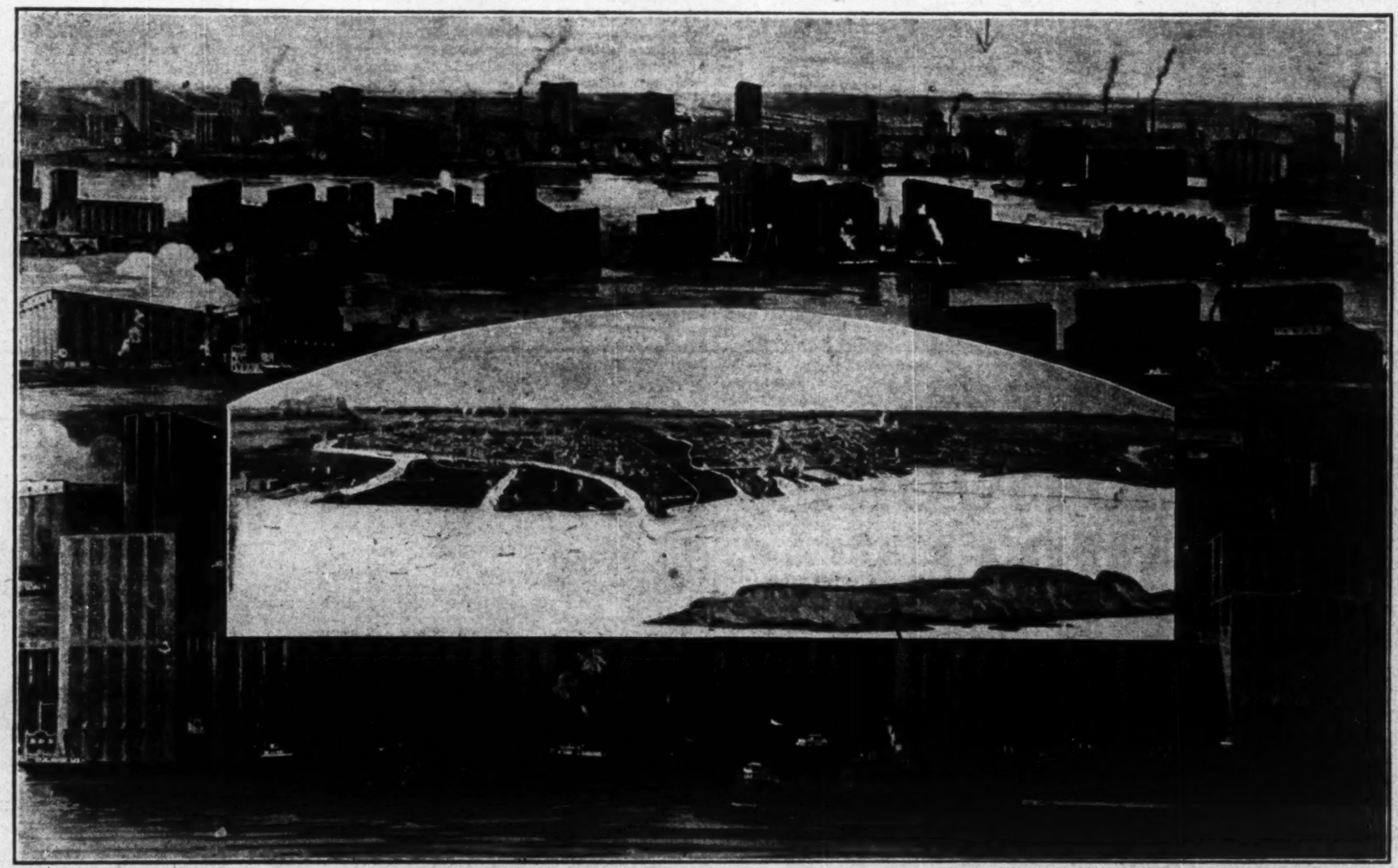
Showing Development In Elevator Storage Capacity.

1900	**5,570,000 bus.**
1912	**24,000,000 bus.**
1915	**43,325,000 bus.**
1924	**57,080,000 bus.**
Beginning 1924	**65,960,000 bus.**

This includes one elevator under construction, but not an additional

5,000,000 bus.

for which plans are being developed.



HARBOR AND SOME OF THE GRAIN TERMINAL BUILDINGS OF PORT ARTHUR and FORT WILLIAM

The Harbor has a deep water frontage of 35 miles, within a radius of less than five miles from a point between the cities, and has handled over its docks, in one year, over 14,000,000 tons of freight of a value of $5,000,000,000. From the 1st of September to the 24th of December, 1923, when navigation on the Great Lakes closed—115 days—there were shipped from Port Arthur and Fort William 213,951,058 bushels of grain, or an average of over 1,860,000 bushels daily.

Showing Expenditures on Shipping and Industrial Development.

$20,000,000	already spent on harbor development
$10,000,000	Spent on Hydro-Electric Development
$40,000,000	Spent on Grain Terminals.
$20,000,000	Spent in developing Industrial Activities.

THE GREAT KEYSTONES

THAT assure the continuous development and prosperity of Canada's great national port and Twin Cities, at the head of Canada's great inland waterway, are their undeniable assets. These are represented in cheap Hydro power; great quantities of grain in elevators constantly at the call of flour mills locating here; vast areas of the finest pulp-wood immediately tributary; areas of vast and proven mineral deposits waiting to be developed.

THERE are assets too in the wide areas of finest agricultural land for dairy farming; in the splendid climate amid the most beautiful surroundings in Canada; and in the transportation facilities afforded by the great transcontinental railways, that reach out to every section of the continent; and in the near future there is the prospect of still further development in transportation when large ocean-going vessels will leave here for the ports of the world.

For Information write to the City Clerks of Either City.

INVESTORS' INQUIRIES

Questions of general interest submitted by subscribers of The Financial Post will be answered in this column, in which case only initials will be used. Other inquiries will be answered by mail. A three-cent stamp should be enclosed to cover a direct reply.

VALENTINE MINES

G.F., Montreal.—Could you tell me what became of Valentine Mines? I bought stock in 1910 but did not get a certificate.

We are unable to find any record of such a company. It does not appear in the reports of the Department of Mines in Ontario or British Columbia.

ROSE GOLD AND SILVER

Reader, Metcalf.—We would be pleased if you would favor us with a report on the standing and prospects of Rose Gold and Silver Mining Co., head office, Ottawa.

Rose Gold and Silver mines were formed to operate a gold property in Larder Lake district. It is a prospect yet to be financed.

ROUYN GOLD MINES

W. B. B., B.C.—I notice that I. J. Isbell, in Timely Talks on Mining, advises Rouyn Gold Mines as a good buy. What chance has it got?

Rouyn is a new camp and while showings are excellent and the outlook promising, shares in any operation in the camp are still quite speculative.

McINTOSH MINES

Reader, Oak Lake.—Can you give me any data on McIntosh Mines, Ltd.? A customer of ours holds a certificate dated 1912.

McIntosh mines were incorporated in Toronto in 1909 for $1,500,000. The property was at Spider Lake, Leonard township. The last time it appeared in the reports of the Ontario Department of Mines was in 1913. At that time the property was idle.

BIDGOOD

A. S., Fort William.—What do you think of Bidgood as a speculation around 10 to 12 cents?

Bidgood is a prospect of merit that has been refinanced and which should get operations under way soon. It is a good speculation at the present market. New electrical equipment is being installed. Mud Lake, which adjoins on the west, has been acquired. The mine is developed down to 600-ft. level.

SILVER BULLION

G.V.W., New Brunswick.—What is your opinion of Silver Bullion Mines? In a card received from Dominion Mining Review, they recommend this issue as the best buy on the market at 28 cents.

Silver Bullion mines are located in Gowganda. Considerable development has been done. It stands the same as many properties in the camp, which has such a small proven area, being highly speculative. It looks a long way from being the best buy on the market.

GOOD MINING STOCK

A.W., Lethbridge.—Have you in mind a good mining stock?

You might make a selection from the following:

Golds: Producers—Hollinger, Dome, McIntyre, Lake Shore, Wright-Hargreaves, Night Hawk and Vipond. Near producers—Tough Oakes, Goldale, Newray, Crown Reserve.

Silvers: Producers—Mining Corp., Nipissing, Keeley. Near producer, Castle.

I. X. L. MINE

Reader, Lethbridge.—I hold a 200-share certificate in I. X. L. Mining Co. issued at Spokane, Wash. 1906. I saw an article in THE POST that the mine was shipping high grade ore. I would appreciate any information you can give.

The report of the B. C. mines department for 1922 states that this property is owned by J. S. Baker, Tacoma, Wash., and the present operators have leased it from him.

VIPOND

J. L., Ontario.—I bought Vipond last December at 90. Could take a fair profit. Would you advise selling now and taking a chance of getting a lower later on.

Vipond dropped slightly on profit taking after it struck $1.40. It went back to $1.28, moved up around $1.30 and $1.32 and seems strong at that price. Some express the opinion that it is high enough for the present milling equipment, but most brokers think it will sell higher.

GOOD SPECULATIONS

J.M., Amsterdam, U.S.—I am thinking of buying, to hold, Tough-Oakes Burnside, Vipond, Night Hawk, Goldale, Castle, La Rose, Crown Reserve, Everett.

Drop La Rose and Everett from your list and you have a group that is favored by those close to mining as being good for a fair hold. They are sufficiently advanced to warrant speculative investment. Vipond and Night Hawk are producing. Tough-Oakes and Castle should be producing before spring.

ABITIBI MINES

Reader, Chatham.—What do you think of Abitibi Mines? Has there been rich ore found on the property? Would you advise buying the stock at 25c.?

Abitibi Mines reports having given an option to a large English house on 500,000 shares of treasury stock at a price to net two shillings a share to the company. There is a smaller option now being taken up in Toronto for a lower price. These latter funds should clear off all indebtedness and leave a good margin to add to the other funds for development work. Negotiations are now on for diamond drilling to start on the property. By the terms of the English option 100,000 shares must be taken up by Feb. 29. The property is a prospect of merit. It has been favorably reported on as warranting the expenditure of considerable money.

PRESTON

Reader, Brazil.—Will you let me know the prospects of Preston East Dome Mines. I notice that the gold industry of Northern Ontario is booming, but the shares of this company show no signs of enhancement. I hold some shares purchased in 1912. Would you advise selling at present prices?

Preston East Dome is well located next to the Dome. The development of the big producer is eastward, and this has given Preston claims considerable speculative value. You say that the shares have not shown enhancement in value. The week before you wrote they sold at 16 cents. Now they are 12 to 13. The recent rise was on a reported deal whereby the company was offered 15 cents a share for one claim, but is reported to have asked 20. The best advice obtainable is to hold your shares.

A FLIER IN MINING

Coal Man, Montreal.—I am thinking of taking a little flier in mining issues and not having any available source of reliable information would appreciate your opinion on the following: Vipond, Keeley, Goldale, Tough-Oakes-Burnside, and Wigwam.

Your selections are sound from a mining investment point of view with the exception of the latter, Wigwam. It is located in the Gowganda silver area and is highly speculative. Of course, its price is in keeping. Keeley is on a dividend basis and has just declared an extra 4 per cent. Goldale is more speculative than Keeley, Vipond or T. O. B., but very promising. Vipond is a rich mine which has just been milling for two months. It would seem to have a good future. T. O. B. should start its mill in the spring. It is meeting with excellent success in developing ore.

LAKE SHORE THE BEST

Reader, Fort William.—Will you please give me your opinion on Nipissing around $6.50; Lake Shore, $3.70; Teck-Hughes, $1.30, as investments? Which do you consider best?

Nipissing at present price is giving a return of better than 14 per cent. on the money invested. The big mine seems to be well able to maintain production. Besides it has certain speculative possibilities in the property it has optioned in Rouyn, Que., and the claims staked in South Lorrain. Liquid assets are over $4,000,000.

Lake Shore at $3.70 is discounting future development. It is expected that next month will see the increased tonnage of the mill in operation. From then on Lake Shore should make large profits. Even at the present price Lake Shore has speculative possibilities.

Teck-Huhges is the most speculative of the three. For the present the stock is regarded as selling high. Of the three we prefer Lake Shore.

INTERNATIONAL NICKEL

Subscriber, Sudbury.—I have some International Nickel. It does not pay dividends and I need a further income. Shall I change to a dividend payer or do you think common dividends may be paid soon?

The possibilities of dividends on International Nickel common are remote. Earnings have improved but they are still low. For nine months ending Dec. 31, 1923, net earnings were $788,192. After preferred dividends this was equal to 23 cents a share for the common. Of this amount 10 cents a share was reported in the December quarter, nine cents a share in the September quarter, and four cents a share in the June quarter. If the company does as well in the current quarter as in the last three months of the 1923 calendar year, net in the fiscal year to end March 31, next, will be equal to 33 cents a share for the common.

For the 1923 fiscal year Nickel showed net of $48,170. After preferred dividends the deficit was $486,586. In the 12 months ended March 31, 1922, a deficit of $797,747 was reported and the payment of preferred dividends swelled this loss to $1,332,503. The management of the company will probably wish to build up the surplus position on the strength of any earnings which materialize during the next year or so.

FIVE MINING STOCKS

W. J. E., Ontario.—I would like your opinion of my holdings in mine stocks: Teck Hughes. Vipond, Consolidated West Dome, Newray, Argonaut.

I understand Teck Hughes is making a deal for Kirkland Lake Gold, and is supposed to benefit. There seems some doubt as to C. W. D. and its ability to continue the financing of their work.

The deal whereby Teck-Hughes would acquire the holdings of Kirkland Lake Gold is still in the air. It may or may not be consummated. Teck Hughes, many believe, is selling above its real value. Interesting developments now going on give it a certain speculative value.

Vipond is highly regarded and there has been considerable enhancement in the market value of the stock since you wrote us. There may be a slowing up in the advance due to profit taking but the best option is that it will sell higher. Its capital is low, $2,000,000. Rumors are that it may figure in a big merger.

Consolidated West Dome is the subject of wild rumors. There are those who say that it will have to refinance. This in the face of a statement from the secretary of the company that there is some $150,000 yet to come in and that those who optioned the treasury stock are weeks ahead of their commitments. However, these rumors seem to have something to do with the market as the stock continues weak.

Newray is a Porcupine prospect in good hands. Coniagas of Cobalt is developing it. It has merit.

Argonaut seems to have solved its metallurgical problems and is now on the way to make a good profit. In Montreal this stock is well regarded.

BLACK LAKE ASBESTOS

Banker, Ontario.—One of my customers is the owner of $1,000 Black Lake Asbestos and Chrome Co. second mortgage income bond. I would be obliged if you would kindly let me know your opinion as to the advisability of holding this bond. What price would it bring?

It would be very difficult to find a market at the present time for Black Lake Asbestos Income Bonds. The most recent quotation we have been able to uncover is quite old and indicated a sale at about 20. Your client might be able to sell his bond but it would be at a considerable sacrifice, and at the moment it would seem that the only thing for him to do is await developments. There have been some negotiations along the line of effecting a merger of the Black Lake Asbestos with two or three other companies, but this deal is far from being completed.

Last summer the president of the Black Lake, J. A. Jacobs, made an offer to a limited group of bond holders of thirty-three and one-third cents (33 1-3c.) on the dollar for their holdings, but we understand this was not extended to all the bond holders and that the offer has since expired.

The directors are: J. A. Jacobs, president; M. S. Amado, vice-president; A. E. Francis, P. Gysler, Leo. Frank, Edward Ansen.

LIST NOT PROMISING

Amsterdam, Ohio.—I recently made my first purchase of mining stocks and would like your opinion on my holdings:

Teck Hughes	1,000 shares
C. W. D. Lake	3,000 shares
Buckingham	4,000 shares
Chaput Hughes	3,000 shares

Teck-Hughes is now selling around $1.30. Only one vein is producing. They are running a long cross-cut to pick up a vein in ore property. This latter holding of the company has speculative possibilities. One drawback is that it is far removed from the underground workings, and the mill of the parent company. The size of the present shaft is a one-compartment one, and besides having to pay off its present bonded indebtedness the company must also sink a new shaft. They also want a new mill. They hope to get over this by acquiring the property of the Kirkland Lake Gold Mine for the balance of the stock in the treasury, 500,000 shares. That will give them an issued capital of 5,000,000 shares.

Buckingham is a gamble. It may require refinancing. Chaput-Hughes is next Teck-Hughes. The rumor that the latter may acquire it gives it speculative possibilities.

Consolidated West Dome Lake is carrying on a very active development in Porcupine, but this stock has been the subject of numerous rumors that the company was not sufficiently financed to carry out its programme of development. This has hurt the market price of the stock. The secretary of the company assures me that they are sufficiently financed to carry out their development programme.

SINTERED ORES ARE EASIER TO SMELT

Saving on Furnace May Partially Offset Cost of Sintering at Mine

J. D. Jones, Algoma Steel Corp., recently prepared a memorandum on the prospects of Canadian sintered ore competing with the ore of the United States.

"We have reached the conclusion that magnetite ore used in conjunction with our siderite ores can be effectively used in our furnaces on the assumption that magnetite ores are usually low in manganese, sulphur, and very low in phosphorus, and that these ores, in being prepared for use on the furnaces, and in concentrating the same, are necessarily low in silicon if they have been concentrated to about 64 per cent. of metallic contents."

In previous attempts, the mistake of briquetting was made, with the result that silicons have run very high, and this made the ore so highly refractory that it seriously affected the furnace cost. As a result, it was developed that a sintered product works better. This led to the erection of the $3,000,000 plant at Babbitt, Minn., to prepare magnetite for competition with hemitite.

Mr. Jones expressed the opinion that with the results obtained in using siderite, where they run 30 per cent. of this ore on their burden, he could see no reason why a combination of the two ores would not permit the reduction of these ores just as cheaply, he felt more cheaply, than the Lake Superior ores, for the reason that you have 100 per cent. of sintered product on the furnace made up of siderite and magnetite in different proportions to suit the chemical specific of ore desired. This will make a full working product of uniform size. He believes this will increase the furnace capacity and decrease the amount of coke necessary to reduce the ore to iron. He sized it up as follows:

	U.S. ores		Canadian
Amer.	70	Magnetite	50
Siderite.	30	Siderite	50
Yield	51.58%		
Coke per ton iron.	2175		1957
Lime Stone	863		776

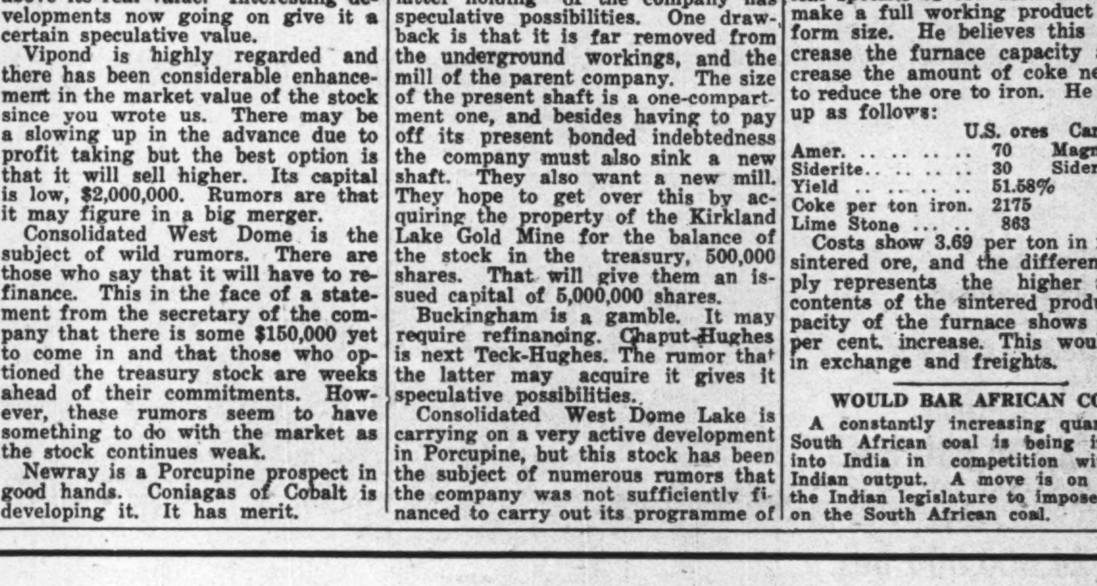
Costs show 3.69 per ton in form of sintered ore, and the difference simply represents the higher metallic contents of the sintered product. Capacity of the furnace shows a 11.18 per cent. increase. This would save in exchange and freights.

WOULD BAR AFRICAN COAL

A constantly increasing quantity of South African coal is being imported into India in competition with the Indian output. A move is on foot in the Indian legislature to impose a duty on the South African coal.

THE KAMINISTIQUIA POWER COMPANY LIMITED

The plant of the Kaministiquia Power Company, Limited, has an enviable record of performance. Since its installation it has had a virtually perfect service, which in itself is a high tribute to the engineers who installed the plant and to the quality of the equipment and to the administrative staff. The plant has consistently delivered power to meet all demands.



Forebay and Penstocks

Interior of Power House

The plant itself as is evidenced in a measure by the accompanying pictures, which can, naturally, give but a faint impression of its size and quality is, beyond any question, one of the finest in Canada. It is superbly located at the Kakabeka Falls, where ample power resources are assured.

The plant has been developed with an eye for future development, which can come with the minimum of expense. It has an assured demand from the city and district of Fort William. This assures a profitable present, while the marvellous advances being made in this section gives an ample promise of a promising future.

PRODUCING CARBON BLACK TO MEAN MUCH TO ALBERTA

New Industry Will Result From Drilling of Many Wet Gas Wells

The heavy demand for carbon black for numerous purposes promises to give Alberta a real live growing industry. It is made from burning wet gas, and so many wet gas wells have been found in Alberta, that already plants to make carbon black have been decided on. One will locate in the Medicine Hat field, and others are expected in the Wainwright-Irma-Fabyan field, and in the Peace River, where the Victory and Keystone Companies are operating.

Carbon black is a pure, intensely black, flocculent form of carbon and is made by burning gas under a very low pressure in a low flame. Not enough air is admitted to produce complete combustion, with the result that the unconsumed carbon is deposited on the roller or plate against which the flame impinges and from which it is removed automatically by a system of scrapers to conveyors that carry it to the packing house, where it is bolted and packed by other machines.

When first scraped from the plates the carbon-black is so light that 30 pounds is all that can be put into a sugar barrel, but this lightness is due to the flocculance of the deposit and the great admixture of air. The removal of most of this air is the particular province of the machines used in packing the "black" for shipment.

The first carbon-black made and sold in the United States on a commercial scale was that produced by J K. Wright, of Philadelphia, in 1864, for use in the manufacture of printers' ink. This "black" was made from artificial gas and a very glossy, intensely black ink was obtained that commanded a much higher price than that made from any other "black."

The growth in the publication of books, magazines and newspapers, created a demand for an ink that could be obtained at a reasonable price, but which had an intense black color and was specially adapted for fast press work. Experiments were made in burning natural gas for this purpose and it was found that the black produced therefrom was admirably suited to the purpose and was superior even to that made from artificial gas.

During the war an urgent demand was created for carbon black in making articles needed for military purposes, and when zinc oxide became scarce and its price high, experiments were made in substituting carbon black for zinc oxide in the manufacture of automobile tires, both the pneumatic and the solid. The result far surpassed expectations and it has been found that by the addition of this substance to the rubber the life of a tire made therefrom was very materially increased, so that it is now used in great quantities for that purpose.

There is no known "black" that can be successfully substituted for that made from natural gas in the manufacture of printers' ink, typewriter ribbons, carbon paper, phonograph records, paints for ships and structural iron, carriage cloth, cameras, electrical insulators, celluloid. cement colors, drawing inks, artificial stone, tile, automobile tires and rubber. To give some idea as to the quantity of carbon black used in the automobile industry alone it is only necessary to state that it takes 1¾ pounds of carbon black for each 30 x 3½ tire, and a proportionately larger amount for the bigger ones. With approximately 14,000,000 cars in use and some 2,000,000 more being built annually, it is easy to see how this industry absorbs some 25,000,000 pounds annually.

The printers' ink business absorbs about 15,000,000 pounds more and the other industries use a like amount. At the present time there is a scarcity of carbon black and the price quotations in the New York market range from 17 to 50 cents per pound, according to grade, the black for high-grade inks commanding the higher prices. The average yield of carbon black is 1.4 lbs. per 1,000 cubic feet of gas.

MICHIPICOTEN LOOKS FOR BOOM THIS YEAR

Considerable Work Has Been Going on Quietly in That Section

Indications are that Michipocoten gold area is going to receive considerable attention during the coming summer. There are many valuable prospects in that section of the country and though little is heard from them, there has always been more or less activity in the camps. Operations in the past have not been carried along on lines conducive to success. Nevertheless, they have left many properties to-day in good shape for a real operation to go ahead on them.

Goudreau Gold Mines are closed for the present. Plans for financing milling operations are said to be under consideration.

Will Tax Undeveloped Mine Lands in Alberta

The question of disallowance or otherwise of the mineral tax imposed by the government of the province of Alberta, is still before the Dominion government. The Canadian Pacific Ry. Co., the Hudson's Bay Co., and other large land holders in the province are appealing for the annulment of the legislation. To exact a tax from undeveloped mineral-bearing lands, it is alleged, amounts to confiscation. The province declares that the holders should develop the lands, make way for those who are prepared to do so, or pay the tax. The consensus of opinion is that the province is within its constitutional authority in respect of the legislation.

Outlook for Mining in Northern Manitoba is Vastly Improved

Aggressive Prospecting Being Done on Properties Near The Pas

BINGO DOES WELL

Mining Corp. of Canada Has Big Acreage of Gold Property Under Option at Present

By J. A. CAMPBELL,
Commissioner, Northern Manitoba.

THE PAS.—The year 1924 opens with a decided improvement in outlook for mineral production in Northern Manitoba, particularly in respect to gold. The outstanding feature of 1923 has been the remarkable showing made by the Bingo mine at Herb Lake. When this property was purchased from the original owners several years ago, the little work that had been done on it showed a narrow vein less than ten inches in width but well mineralized. Prospects looked fair for a small mine of considerable richness. Now that a shaft has been sunk over 400 feet and approximately 800 feet of drifting and cross-cutting done, it is found that not only are values maintained at depth but are found throughout a very much greater width or volume of quartz than was originally anticipated. The prospects now are that the property will become a mine of considerable magnitude.

A little over a year ago there was formed in England the Bingo Gold Mines, Ltd., which company included the original purchasers and took over the property from them. Sufficient money was raised for properly working the property; mining machinery of the latest improved type was purchased, transported to the mine last winter, duly installed, and active mining operations commenced in May, 1923. Since that time the work of blocking out the ore has continued without a break and between 25 and 30 men have been steadily employed. There has been no attempt to make any showing in the way of prematurely producing "bricks" or otherwise, but the accumulated ore now forms a large stock pile which has an estimated value of $150,000.

Interest Awakened

The success of the Bingo is having an important effect on mining endeavor generally throughout The Pas mineral belt, for if in one case from somewhat meagre surface showings a large and valuable property is being shown up, what may be the outcome from similar development of other claims in the district which appear on preliminary investigation to be quite as promising? And may there not be other veins of like nature in the adjacent mineral areas? With those questions in mind, intensive rather than expansive prospecting has been carried on during the past year. Hitherto it has been the custom to seek out remote and previously unexplored places with a view to locating minerals and staking claims, but latterly it has come to be recognized as the "better part of wisdom" to more thoroughly prospect the claims already staked and the territory adjacent thereto and by sinking shafts, trenching and other work, investigate and examine the veins already located. Besides, this course of action is specially important in order to give engineer representatives of mining companies looking for suitable properties to purchase, some material showings to work on. Important results from this changed line of activity have been obtained, particularly at Herb and Elbow Lakes.

Many Scouts Out

Engineers representing several of the largest Canadian and American companies have visited the district during last season and several of the best-known properties are now under option. For two months and a half engineers of The Mining Corporation of Canada, with a crew of fifteen men, have been carefully sampling the Rex, this company having secured an option on this property till about the middle of February. Before this time is up, complete assay reports will be available and it will depend on these whether the option will be exercised or not. If the option is taken up, as from outside information it would appear to be altogether likely, it will mean that this well-known property, generally recognized to be one of great promise, will be in the control of an organization which has the capital, experience and ability to thoroughly develop and work it along right lines. The inactivity hitherto has been due mainly to lack of capital and conflicting interests involved. The immediate program in the event of the option being closed out would cover sinking the main shaft an additional 250 feet and extend drifting 1,500 feet or more. It is reported also that adjacent properties, the Northern Manitoba and Kiski, would also be taken over and combined with the Rex. An amalgamation of this nature with strong, capable management, would, in the opinion of reputable and competent engineers, make a great producing property. Some years ago the Northern Manitoba shipped a full carload of ore taken, without selection, from the shaft, to the Trail smelter, and there was realized therefrom $82 per ton. Assays from careful and extensive sampling of the Kiski gave indications that this property is in the same class.

Panned 35 Ounces

On a claim a short distance from the above, the prospector-owner, during the summer, pounded out by hand and panned over 35 ounces of gold, from which he realized over $700. Subsequently the claim was sold for a tidy sum to a representative of a Saskatoon syndicate. This syndicate also purchased other claims in the vicinity. The business men of Saskatoon seem to be alive to the situation. Another syndicate has a group of claims on Broad Bay and a shaft is being sunk under contract.

Late in the summer another important discovery was made at Herb Lake by Louis Revord, a resident prospector. This is a short distance north of the Bingo. Several veins were uncovered, all showing considerable free gold; immediately other claims were staked adjoining this and investigations since carried on have shown them to contain veins similar to the original discovery.

At present, steam furnishes the motive power for mining operations at Herb Lake and thousands of cords of wood are required annually to develop this power. The Bingo Company alone is calling for tenders for 5,000 cords. This fuel supply is sufficient and satisfactory for the work in its initial stage, but something better will soon be needed and is now in contemplation. In fact, actual steps have already been taken to work out a water power scheme by development of one or more of the power projects on the Grass River. This is the river that runs through the mineral belt, and of which Cranberry, Reed, Herb and other lakes are really expansions. It enters Herb Lake at the northwest and flows out at the northeast. At its entrance are the Wekusko Falls, from which it is estimated 1,600 h.p. might be developed without storage. Between Herb Lake and Setting Lake, a distance of about 60 miles, there are at least three power sites, of which the best-known is Lynx Falls. With respect to this, a report of the Dominion Water Powers Branch states:

Possible power (80% efficiency) at ordinary minimum flow, 1,620 h.p.; estimated maximum development (without storage), 4,860 h.p.

A fully equipped survey party has just gone into the district for the purpose of making a complete survey of these power sites with a view to selecting the one most suitable from the standpoint of development, transmission and use in the Herb Lake mining camp.

Elbow Lake Quiet

Compared with the preceding year, Elbow Lake has been rather quiet but not by any means deserted. The dropping of a certain option a year ago by well-known interests, while resulting in a temporary setback to the property involved and to some extent to the district, has not put this area out of business by any means. The owners of this particular property, after making certain further arrangements, have gone on with the work of development. The sinking of the shaft was continued with the result that promising gold values were revealed. On the Webb property further north, additional prospecting has shown up veins or shoots rich in free gold.

The price of copper at a nearly normal figure was of short duration and latterly it has again had a serious slump. The effect of this is to retard for a further period the development of certain copper properties in Northern Manitoba. It will be remembered that the Flin Flon mine, after several years of investigation by diamond drilling and otherwise, involving the expenditure of over three-quarters of a million dollars, showed up a body of sulphide ore exceeding sixteen million tons. Also that certain shares of the original owners were purchased by The Mining Corporation of Canada which now holds a major interest. A subsidiary company, known as the Manitoba Metals Mining Company, was organized and has secured and controls a number of claims adjacent and in close proximity to the original property. This latter company has been carrying on certain operations in connection with these claims for several years and during last season has had two parties on the ground, one in charge of a drill outfit operated about half a mile from the main shaft, and the other, under Dr. Armstrong, formerly of the Geological Survey, carried out a program of systematic and intensive prospecting by parallel compass lines. This is the first time such a thorough-going scheme of prospecting has been put in operation in Manitoba, and while the outcome of the season's work has not been announced it is know that results of a satisfactory nature were obtained.

Copper Activity

In the season of 1922 several discoveries of quartz suitable for flux were made. When, therefore, general conditions improve and copper shows signs of approaching normal price, there is every reason to believe that active operations for developing the Flin Flon mining property will be got under way. This will involve, among other enterprises, the working out of a power scheme already formulated, and the construction of a railway connecting with the Hudson Bay Railway north of The Pas. Other copper properties in the district are awaiting the advent of this railway before they can be worked economically. Particularly is this true of the Mandy, from which 26,000 tons of super-high-grade chalcopyrite valued at nearly three million dollars was taken during war times. The present or even the normal price of copper will not admit of the profitable mining of the remaining ore in the lens unless railway facilities are provided.

The Baker-Patton property on Sourdough Bay, Lake Athapapuskow, has come in for considerable attention since its discovery. Like other prospectors who have made similar discoveries, these parties have not had the means to sink a shaft or do any diamond drilling but have accomplished considerable in the way of trenching, thus showing up the surface. This is an extensive body of copper ore (chalcopyrite). The surface indications are good but what is needed is a certain amount of diamond drilling, for which conditions are most favorable. The property is now under option and it is reported that arrangements are being made to put on a drill in the spring or early summer. On Thompson Lake, a short distance from the above and similar to it in respect to mineralization, another ore body has been located by the same people. Then there are the Rosen and other promising claims in the vicinity. Altogether this particular district offers excellent opportunities for exploration by diamond drilling.

Outlook Is Hopeful

Manitoba, therefore, has reason to feel cheerful and hopeful as the result of last season's mining and prospecting operations. The actual work done has been more systematic and business-like and more extensive than in any previous period except during the Mandy output. Prospectors are beginning to realize that intensive prospecting in territory already explored is likely to produce more beneficial results to themselves and to the country generally than by spreading all over the map in an endeavor to locate new mineral territory. Besides, certain known areas have better transportation facilities. The Athapapuskow district at the west, and the Herb Lake district at the eastern end of The Pas mineral belt are readily accessible. Particularly is this true of the last-named, which is easily reached by a government road eleven miles in length connecting with the Hudson Bay Railway at Mile 82. Also there is an efficient telephone service between the camp and The Pas and intervening points. These are advantages that mean much in economic development.

GOOD CHANCES FOR SILVER IN YUKON

Discovery of High Grade Caused Heavy Rush to Beaver River Lately

With regard to the reported rush now in progress from Mayo to the newly-discovered silver region of Beaver River district, Yukon Territory, W. E. Cockfield, of the Geological Survey, supplies the following information:

Mayo is situated on upper Stewart River, about 100 miles east of Dawson. The Mayo district is readily accessible in summer from Skagway on the coast by means of the White Pass and Yukon Route, which operates steamers on both Yukon and Stewart rivers, in connection with its train service from Skagway to Whitehorse.

High-grade deposits of silver lead ores were mined in Mayo district as early as 1914. The discovery of the Keno Hill ores in 1919, however, led to the entry of two large companies into the field, and these two companies have since been actively engaged in mining. Production from Keno Hill commenced in the winter of 1920-21 and the total ore shipped to date amounts to 13,315 tons having a value of $1,746,527 in silver and $677,923 in lead. A shipment of between 7,000 and 8,000 tons is expected during the present winter.

The Beaver River area lies 50 miles to the north of Keno Hill. Some silver lead deposits were discovered in 1922 but the ore deposits proved to be low grade and many of the claims were abandoned. From what information is available, the new discovery lies 16 miles to the east of the former discovery. The stampede to the district which occurred recently is reported to have taken place owing to the discovery of high-grade ores carrying 1,100 ounces of silver to the ton.

Silver-lead ores have been discovered at many points between the two districts, and as much of the area remains unprospected there is an excellent chance that further discoveries will be made from time to time.

Wages of $115,000,000 From Iron Ore and Steel Industry

Proper Development Would Mean Much to the Dominion While at Present We Buy Heavily in United States

Canada has nearly 40,000 miles of railway and should produce 7,000,000 tons of steel instead of 2,000 tons, taking the railway mileage as a basis of comparison. Taking the statement of the United States Steel Company for 1917 as a basis, it would mean that if 7,000,000 tons of steel were produced in Canada there would be over $1,000,000,000 invested in the mines and plants, and 30,000,000 tons of iron ore, coal, and limestone, handled annually, the produce would be worth about $600,000,000, said J. E. Marks, Port Arthur, in a memorandum to a meeting of mine operators at the head of the lakes last year. He added that the employees would receive about $115,000,000 in wages, and they would pay to the treasury of the Dominion government $14,000,000, to the railways $8,000,000, to the municipalities in taxes $8,000,000, besides about $11,000,000 for the use of public utilities.

As against this, during the past thirteen years, Canada has imported iron and steel products at a value of about 1,235,000,000, all of which should be produced within the Dominion. In 1916, of twenty furnaces, only 14 were in blast for varying periods of time, yet, in the years 1913-14-15-16, we imported from the United States $5,496,639 worth of pig iron. In 1919 there was little or no structural steel manufacturers in Canada. We also in 1919 imported over $182,000,000 worth of iron and steel products.

Ontario Well Equipped With Blast Furnaces

Ontario is well equipped for the smelting of pig iron. There were available for use in 1922 in the province eleven furnaces with a combined daily capacity of 2,870 tons of pig iron, or annual capacity of 861,000 tons. Six of these furnaces were idle during 1922. One was operated for the full year and the other four for broken periods.

A Mine of High-Grade Lore!

ENTERPRISE and belief in the importance of the future of Ontario's goldfields are the key-notes of the "Canada Gold Review".

This journal contains intelligent and authoritative reports on mining developments throughout the country and is replete with maps and photographs of the properties. It is bringing to the attention of investors in the United States and Canada the profit possibilities of precious metal mining in Northern Ontario.

The "Review" keeps investors posted on investment opportunities, encourages them to speculate intelligently and scientifically, and helps them to investigate before they invest.

* * *

Sample copies of the next three issues will be sent free upon request.

Send in your application at once and receive free copy containing map of the silver area of South Lorrain.

DEPARTMENT 519

Canada Gold Review
19 Melinda Street - - - - TORONTO

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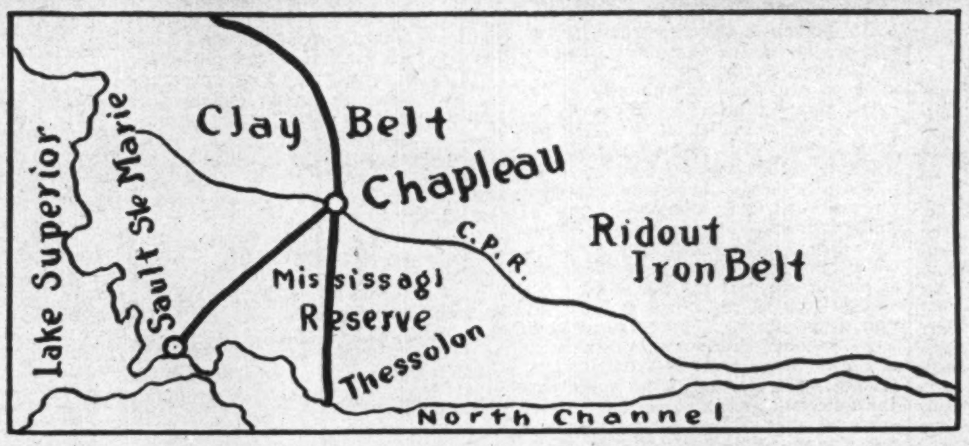
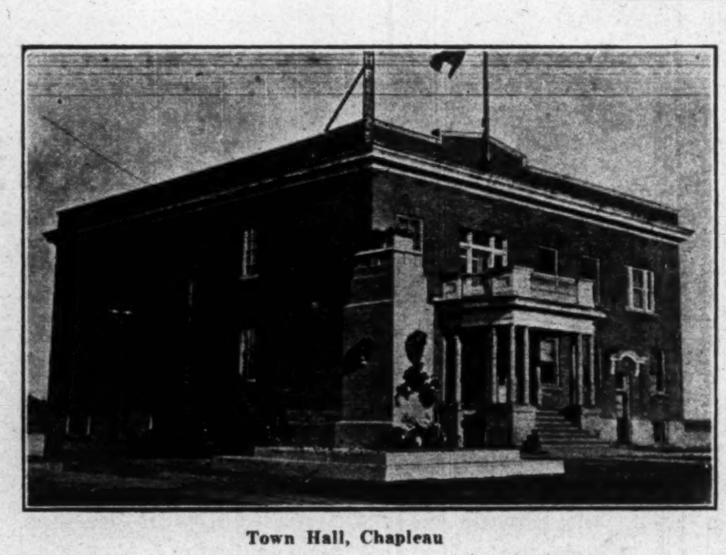
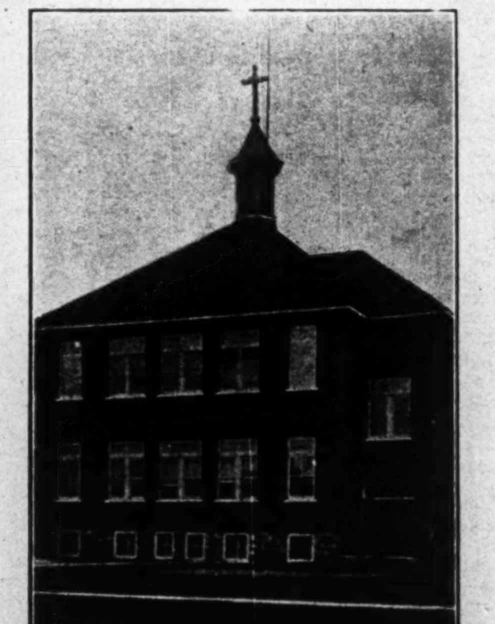


Proposed Highway Connecting With Sault. Ste. Marie Highway

Divisional Point for C.P.R., Algoma Division



Town Hall, Chapleau



Separate School, Chapleau

Lady Minto Hospital, Chapleau

A Model Home and Business Town

Chapleau is a substantially built modernly equipped town of which its citizens are justly proud. It is situated on Lake Kebsquasheshing, and is almost surrounded by water, which not only provides marvelous facilities for boating, fishing, and summer camping, but is a protection from fire hazard. The town has a thoroughly modern fire fighting equipment, including a new fire hall, electric fire truck and two complete steam units. The town has cement sidewalks throughout. An automatic telephone service, financed locally, gives a splendid service.

No place in the north has a more complete school equipment. The public school is a new building of the most modern construction, with steam heat and modern ventilation system. The High School and Separate Schools are almost equally modern, and there is an Indian School that is one of the best in the province. There are three fine churches in the town.

Chapleau has a reputation for its social life, there being numerous, highly organized clubs. It is an ideal winter town, having skating and curling rinks, while a small golf course is at present in course of construction.

The town is ideally located, too, for hunting, fishing, and trapping, and there is a limitless supply of game.

From a health standpoint the town is unusually favored. There is splendid hospital accommodation to meet any emergency in the Lady Minto Hospital, which is capable of handling all manner of medical and surgical cases.

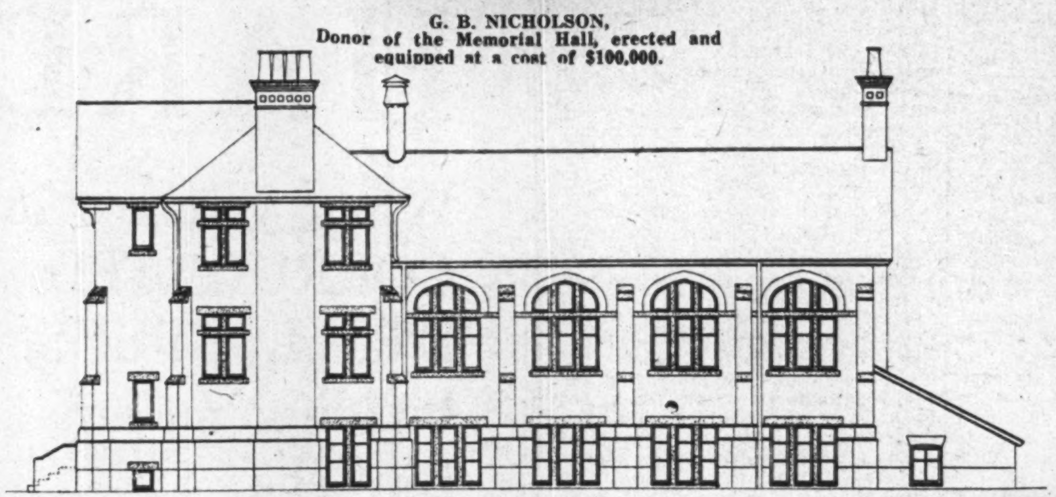
The Surrounding Section

Chapleau is on the southern edge of the great clay belt, and there is a splendid farming section adjacent. It is the logical centre, too, of the great timber resources of this belt, while to the south, on the course of the proposed roadway, between the town and Thessalon, lies the great Mississauga Forest Reservation that has one of the greatest stands of timber on the continent.

The Ridout Iron belt, just south-east of Chapleau, is a tremendous potential asset to the town.

In the immediate vicinity also there is an ample supply of undeveloped hydro power available to provide for any need that may arise.

G. B. NICHOLSON,
Donor of the Memorial Hall, erected and equipped at a cost of $100,000.



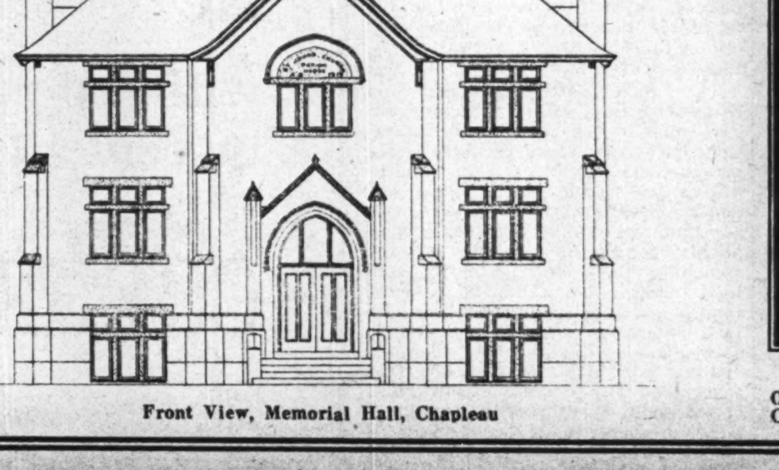
Side View, Memorial Hall, Chapleau

A Railway Centre

The town is a divisional point of the C. P. R. Algoma Division. It has a round house, a locomotive repair shop, car barns, and a recently built stock yard for the feeding and resting of stock in transit.

Four transcontinental trains stop daily at Chapleau for fifteen minutes, while in the Summer the service is increased to six trains.

MAX BRUNETTE
Reeve of Chapleau



Front View, Memorial Hall, Chapleau

Proposed Highway Through the Centre of Northern and Northwestern Ontario

This highway will connect with the present trunk highway running into Sault Ste. Marie, and running in a northerly and northwestern direction connect with the present highway system, partly constructed, between Nipegon and Port Arthur, thus completing the last link in an all-Canada highway connecting the East with the West. Its main purpose, however, will be the opening up and developing all the rich country north of the north channel of Lake Huron and through the centre of the great clay belt. For the first 100 miles it will run through the Mississauga Forest Reserve, an area containing the greatest volume of potential wealth in timber to be found anywhere in Northern Ontario. It will make accessible the water powers of the Mississauga and White Rivers, and make possible the utilization of the large hardwood areas. It will touch the great clay belt about 20 miles south of the Canadian Pacific Railway to Chapleau. Running north and northwest from Chapleau the highway will pass for two hundred miles right through the centre of the clay belt, making easily accessible the vast iron ranges of the Ground Hog River, and the pulpwood and timber areas between the Canadian Pacific and Canadian National Railways. It will open for settlement the most valuable agricultural area north of the height of land. While a few miles of construction will link up this road with the highway from Cochrane to Hearst.

This highway will be Ontario's contribution to the national solidity of Canada as a whole by breaking down the barrier now existing between east and west.

The Memorial Hall

Much of the social life of the town centres around the Memorial Hall. It was donated to the town by G. B. Nicholson, who was Mayor for thirteen consecutive years and represented the district in the Federal Parliament for four years. The Hall is a memorial to his son, Lieutenant Lorne Nicholson, and the twenty-six Chapleau men who gave their lives in the great war.

The Memorial Hall is conducted by the Men's and Women's Clubs.

In the basement there is a splendidly equipped gymnasium and shower baths. On the main floor is the assembly room, a public library and primary rooms, and on the top floor men's rooms and ladies' rooms.

The grounds are a magnificent sight in the summer time, and the roses, to which Mr. Nicholson gives his personal attention, are not to be surpassed in Ontario.

V. T. CHAPPLE,
One of the men who has made Chapleau the good town it is.

The Council

REEVE
M. BRUNETTE

COUNCIL
W. J. CARD
G. McCORD
M. J. DELANEY
S. W. McDONALD

OLD FOLY VALUES HIGH; RE-SAMPLING HAS BEEN ORDERED

British Canadian Company Startled by Assays of First Checking of Values

WILL PUSH WORK

Development Underground to Produce Tonnage is Decided on—Many Interesting Veins

The history of the Foly mine of Mines Centre, later the Swedish-Canadian, and now British-Canadian, has been a varied and interesting one. It has been the subject of no little litigation, many knocks, some boosts, with present indications that it will emerge from all a big mining proposition, the profitableness of which will depend on the tonnage that can be developed. Values it has, the recent engineers' report shows, even after liberally discounting the high values shown, which rechecking of assays and dilution that might follow even if selective mining was followed.

Many years ago the old Foly produced gold bricks. Over 20 years ago, Foly, generally referred to as the Eccentric Joseph, had a 20-stamp mill going, and was constantly startling people by pulling gold bricks out of his pocket. Foly died, and litigation over the property, which followed, tied it up. Now it has reopened.

British-Canadian mines is going about the new development in a quiet and systematic way. A good deal of money has already been spent, and the surface buildings put in good shape. The mine has been sampled, and the results proved so startling and values so much higher than expected, that some 18 samples, picked at random, were rechecked. These showed a variance, some higher, some lower, and on the advice of the department of mines it has been decided to resample the mine again. With such high-grade ore, it is generally found difficult to get true values by sampling, the best test being mill run. In this regard the milling experience of the former operation, with assays of the tailings, shows values running very high.

While resampling is going on development work will be pushed. The work now proceeding is drifting south on the Bonanza Vein at the 400,-foot level, and on the Jumbo vein at the 150-foot level, for a distance of 250 feet, at which point these two veins join.

Frank Huff, of Kirkland, who rechecked some of the samples, commented in his report on the high values, saying that such values are rare and declaring that they look like one of the elusive mines if there is the tonnage.

Frank Carnegie, engineer in charge, says he sampled 13 veins on the 1,027 acres and seven of these showed important ore shoots of commercial value. He says:

> "The number and good average value of the veins on the property, together with the very high values underground on the only vein (the Bonanza) on which any work has been done, demonstrate, in no uncertain manner, that you have a most valuable property, one which with reasonable expenditure of capital, will develop into a rich producer."

His recommendation is to proceed with the blocking out and breaking down of ore, and to later decide on mill plans. He says:

> "I now recommend that you start mining operations on the 400 foot level in the north shaft, and drive crosscuts east and west to cut the 'A' and Sulphide veins on the east and the Jumbo and West veins on the west, and also drift south, on the Bonanza vein, to its intersection with the Jumbo. By this means we would explore these veins and if they show up, as well as I anticipate, we can then develop a very large tonnage of ore on them. We will then be in a position to judge what our mill requirements will be and act accordingly."

BELCHER ISLAND'S FUTURE

Peering away on into the future, and perhaps not so long as that, one can see a great flourishing iron ore industry at Belcher Islands in Hudson's Bay. There are 200 miles of iron formation on the island. There are five beds which are exposed for 110 miles.

ANOTHER IRON ORE FIND

Last fall an iron ore discovery was reported west of the Pic River at a point about six miles north of Port Munro harbor on Lake Superior. The ore from this discovery is said to be about sixty per cent. iron, but a complete analysis is not available. It can be taken by a gravity system to Port Munro at a very low cost.

OVER 2000 MILES OF IRON RANGES AT HEAD OF LAKES

Mining Man Has Spent 20 Years Exploring Them, He Says

By J. E. MARKS.

On my own explorations, which extend over a period of nearly twenty years, which was given almost exclusively to the study of the Canadian iron ranges, I have visited, personally. over 1,000 lineal miles of iron ranges in Western Ontario alone, independent of the Michipicoten, Magpie, or Moose Mountain districts, all within rail haulage distance of lake freights, as well as being conveniently near existing railway lines. I also know of various other areas which may be considered as future ore reserves of the Dominion, but are at present too distant from railway transportation.

In the whole of the explorations, while I have found but few outcroppings of shipping ore, I would consider that in the first 1,000 miles of ranges mentioned there are at least 100 lineal miles which were worthy of being given the much closer examination which would precede diamond drilling, and, outside of this, there are large areas which can well be taken into consideration as a concentrating product.

Up to the present time the only straight shipping ore that was found in the Lake Superior district was in the Michipicoten district, all the others needing beneficiation in some form or other. This does not mean that no shipping ores will be found. but so little diamond drilling has been done, and that principally on the Atikokan iron range, that I would consider it only necessary to carry on extensive explorations to locate very considerable bodies of good grade ore.

SYDNEY MINERS WORKING WELL IF LEFT ALONE

(Continued from page 8)

production and steady employment is assured. The old Scotia steel plant there was abandoned two years ago because the Besco mills at Sydney were capable of handling more efficiently all the business offering.

Unemployment Acute

Meantime, the unemployment situation became so acute last week that Mayor Nicholson appealed to Premier Armstrong, who made an arrangement with Besco under which the Scotia pits are to be operated for the time being. Admittedly this is only a temporary relief measure, and in the near future some more drastic permanent remedy will have to be worked out.

While the stage is set now for a productive season, yet the indications are that the next few months will be far from peaceful. The most disturbing element in the situation is the provincial election in the offing, which has inspired a number of professional politicians, normally lined up with the companies, to begin their quadrennial noisy performance as friends of the people—particularly of the miners.

The main disturbers who may be counted upon to keep trouble rolling during the next few months are:

(a) Professional politicians; (b) anti-Wolvin factions in the corporation, and (c) U. M. W. provisional executive and its internal wars.

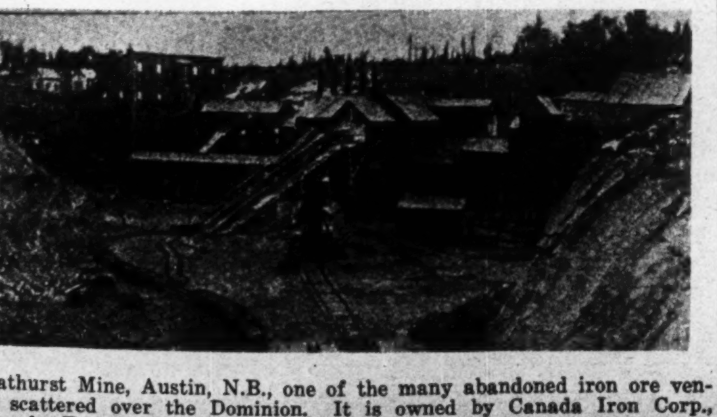
Union Complications

With regard to this last, the Barrett faction has recently stirred up a hornets' nest by declaring that a careful search of the available records reveals $13,000 of union funds unaccounted for by Livingstone and McLaughlin, the district officers deposed by John L. Lewis last summer. They do not charge that the money was stolen, but complain that the refusal of the old executive to turn over the books has caused this confusion.

Alex S. McIntyre, for the old officers, has replied that the books are in safe-keeping, and will be produced at the proper time, when McLaughlin gets out of the pen and starts in to vindicate himself. The incident is unfortunate because, whatever else might be said of the old Red leader, his personal honesty has never been questioned.

Unless Barrett has some good reason not apparent on the surface it looks like very bad tactics to bring up such a matter now when it cannot possibly be settled, and when it merely serves to keep the men agitated, and prevents a reconciliation between them and the provisional staff, which, presumably, Barrett and his friends desire.

After all, anyone who wishes to understand the situation and outlook in Cape Breton must remember that McLaughlin and his officers are the choice of the miners at the polls by a large majority, while the Barrett regime is in the nature of an occupational force placed in authority by an outside power—John L. Lewis.



Bathurst Mine, Austin, N.B., one of the many abandoned iron ore ventures scattered over the Dominion. It is owned by Canada Iron Corp., Montreal. From 1910 to 1915 it produced 180,760 tons.

Canadian Industry Will Suffer As U. S. Conserves its Iron Ore

Must Build up Iron Mining Industry in Next Ten Years to Meet the Exhaustion of Exportable Supply From Across the Line

> "The unanimous opinion of this committee is, that our iron and steel industry will suffer severely as the United States Lake Superior ore reserves, now being rapidly used, are conserved to a greater and greater extent for American furnaces; and that we must, during the next ten years, build up an iron mining industry that will largely free Ontario from the necessity of importing ore."

The above opinion of the experts of the Ontario iron ore clearly sets forth the precariousness of the iron and steel industry of Canada.

The committee says, "WE MUST build up an iron mining industry."

FOUR PROPERTIES IN ROUYN SHAPE UP LIKE MINES

Chadbourne, Horne, Stabell and Lake Fortune Regarded Favorably

ORE BODIES LARGE

Season's Prospecting has Extended Belt Hundred Miles East but Veins are Narrow

In a short review of recent developments in Northwestern Quebec, Dr. H. C. Cooke, of the Geological Survey, states that at least four ore bodies have been discovered that seem likely to develop into producing mines. These are on the Chadbourne, Horne, Stabell and Lake Fortune properties.

On the Horne claim, four or five sulphide bodies have been found to date and partially explored by trenching; but there are indications that others occur. One body is reported to carry 7 to 10 dollars in gold to the ton and 5 per cent. or more of copper. The one on which work is being pushed appears to be more than 50 feet wide at the surface; the other dimensions are still unknown.

On the Chadbourne property the rock has been replaced by heavy sulphides as on the Horne, but, unlike the Horne, the sulphides are accompanied by considerable amounts of ordinary vein minerals such as quartz and calcite. Values obtained are very promising.

The discovery on the Lake Fortune property was made several years ago. Work was renewed in 1923 and trenching has revealed some rich specimens of gold and tellurides. The ore lies in a belt of schist having a minimum width of 6 to 8 feet. At the southeast corner of Lake Fortune, more or less quartz has been injected between the layers of schist and the whole is mineralized with free gold, gold-silver telluride and sulphides.

The Stabell property lies in Dubuisson township. It consists of a quartz vein 2 to 3 feet wide, rather heavily mineralized with auriferous chalcopyrite.

Not the least important result of the season's prospecting is the discovery of gold at a great many other points, proving the auriferous character of a belt of unknown width extending more than 100 miles east from the interprovincial boundary. Most of the veins found are too small or insufficiently rich to be of commercial importance, but their occurrence shows that the conditions favoring the formation of ore bodies prevail throughout the belt, and holds out the reasonable expectation that with further search larger and more valuable deposits may be found.

Schrieber Coming in For Much Attention

Recent reported finds on Schrieber gold mines have focused attention on that camp. An important deal to finance that company is about consumated. Values are running high over narrow widths.

The Fenning property is being operated by L. Fenning, an Alaska and British Columbia miner. He has 14 claims due south of Schrieber, and has a shaft down 172 feet. He gets good gold and silver values, the former mostly in gold tellurides, runnine $6. $7 and $8, with silver 8 and 9 ounces. Copper content at times is high. The vein runs nearly due east and west. The wall on the south is keewatin, while that on the north is porphyry. The vein on the north is white quartz, carrying gold, silver, and copper, while the porphyry wall is found to carry copper in many places fully as rich as the vein.

Mr. Fenning intends to continue sinking the shaft until he reaches a depth of 200 feet. At this point he will drive a tunnel along the vein east and west. This will be followed at the same depth by a tunnel to the north cutting across the porphyry dyke, which he feels sure, from surface indications, will disclose other values that will equal those discovered during the sinking of the shaft.

In order to avoid unnecessary expenditures for freight charges, Mr. Fenning intends before long to install a small mill with which he will extract the gold and silver values and ship concentrates, which he estimates will run approximately ten per cent. or only 200 pounds of concentrates for each ton of ore taken out. This is the plan of operation outlined for the present until further development discloses the full extent of his property.

District Quite Active

On the Longworth group, there is a large calcite and quartz vein 24 ft. wide. Values in gold and silver are low. The Horton property on the same strike as the Schrieber gold mines is being developed also.

C. A. Currie, operating at Duck Lake, 15 miles north, has gold showings in mud veins and in calcite. A shaft will be sunk in the spring. A road to Duck Lake has been completed.

CUSTOMS SMELTER AT COAST NEEDED AS MINING AID

Would be Boon to Many Mines Now Handicapped By High Charges

TREAT ALL ORES

Portland Canal and Salmon River Sections Would Reap Material Benefit

From Our Own Correspondent.

VICTORIA. — Third payment on their option on the Big Missouri mine at the head of Cascade Creek in the Salmon River section, has been made by the Trites-Wood syndicate. The option was taken about a year ago, and development was actively carried on last summer by tunnelling and diamond drilling, with encouraging results.

Reports from other mines in the Salmon River area are similarly satisfactory. The Seven-Mile mine, just across the international boundary in Alaska, has been developed to a depth of 400 feet, with ore running from $8 to $20 in gold and 35 ounces silver per ton. A new ore body of large dimensions has been discovered on the property.

Mining interests of British Columbia are now carrying on a campaign for the establishment of a custom smelter on the coast. Such an establishment would be of great benefit to producers that are now handicapped by their distant separation from existing smelters. It is estimated that the cost of a plant capable of treating one thousand tons of ore a day would run between $4,000,000 and $5,000,000.

The Silver Standard mine at Hazelton, which has been one of the most important producers in the past, is now standing idle because of the excessive cost of transporting ore to Trail. This and many similarly-located properties would be able to add to the mining wealth of the province if the proposed smelter were to be established.

Would Interest Capital

Grant Mahood, organizer of the American Mining & Milling Company, which operates a chain of properties in the Portland Canal district, states that such a plant would mean greatly increased prospective earnings for coast mines and would make it easier to interest capital in British Columbia mines.

The proposed smelter would be capable of handling about 1,500 tons a day and would be equipped with units to treat zinc, lead, copper, silver and gold. The requirements of such a smelter would be the usual calciners of various types to drive off the acids, zinc furnaces of the retort type, blast furnaces for the copper-lead separations, a bessemerizing plant, a silver separation plant, an electrolytic copper refinery for gold extraction, and for the zinc either the electrolytic or reverberatory furnace refinery.

MEXICAN PRODUCTION OF SILVER CURTAILED

Forward Prices Expected to Strengthen Action in U.S. Over Pittman Purchases

Silver buying in New York since the first of the year is reported double the usual transactions. China and India have been the chief buyers.

Production in Mexico is greatly reduced and if this continues the forward price is likely to be rather interesting. In any event forward prices should exhibit considerable strength.

Following termination of buying for the Chinese New Year, India came into the markets for more than its usual amounts but due to the relatively small stocks at Shanghai, China also joined as a buyer.

Exceptionally good trade conditions in India are having a marked influence on the silver market.

It has been announced by W. Mont Ferry, chairman of the organization of the U. S. silver producers, that mandamus proceedings against the treasury department to compel fulfilment of the Pittman Law covering the additional purchase of nearly 14,579,730 ozs. of $1 silver, would be started at an early date. Former Senator Charles S. Thomas of Colorado has advised this action.

An investigation of $29,000,000 additional in silver exported to China in 1919 and under sanction of the Federal Reserve, is being made and Mr. Thomas will also advise on this matter. This silver, delivered in China when it sold at its highest in many years, was used to depress or render "more normal" sensational silver prices at that time. The issue in this instance, it is understood, rests in the question of whether the Federal Reserve had the right to melt down silver dollars.

Swedish Iron Deposits Much More Extensive

The thorough investigation, now concluded, of the iron ore deposits at Kiirunavaara in Northern Sweden shows that these deposits are considerably richer than previously supposed. Very extensive rich deposits extend to a depth of at least 700 m. (say 2,330 ft.) below sea level at Luossajarvi, where the corresponding depth in 1913 was estimated at only 300 m. (1,000 ft.). The ore reserves are therefore much richer than the 740,000,000 tons estimated in 1918; this figure must be at least doubled. At the Malmberg the ore reserves are estimated at about 195,000,000 tons. Investigations have also shown that the deeper deposits contain the so-called A ore, which is a higher quality than the phosphoric ore now almost exclusively mined.

SINTERED ORE CUTS THE FURNACE COSTS

Discovery of This Fact Led to Erection of Big Plant at Babbitt

The question is being asked will there be a market for sintered Ontario iron ores?

The answer to that is that sintered ores enjoy a better market and command a better price than high grade ores.

Last year ores were sintered at Babbitt, Minn. It is understood that instead of using the high-grade ores brought to Detroit by cheap water route that Ford shipped sintered ore all last winter by rail, and this ore brought a better price than the standard price for this grade, as the progressive rate of increase for iron content is allowed for this ore on the total iron contents about 55 per cent. In a standard ore this progressive increase is discontinued for the iron content above 60 per cent. The sintered ore averages 63-64 per cent.

IS THE AMENDED BANK ACT TO BE GIVEN A CHANCE?

(Continued from page 1)

years preceding his appointment. In the case of the Home Bank, there was only one auditor at, or before, its failure, and he was not recognized as a "chartered accountant" in the list of auditors as published by the Canada Gazette, Aug. 5, 1922.

It shall be the duty of the two auditors, under the act as amended, to report in writing to each director individually any loans exceeding 1 per cent. of the paid-up capital of the bank which, in their judgment, are inadequately secured, and also any transactions or conditions which are not satisfactory to them. This provision should compel directors to direct or be liable for their negligence if they do not pay attention to what is brought before them by the auditors.

In the amended act there is also a new provision designed to keep the auditors independent of the management of the bank, and prevent the duty and interest of an auditor coming into conflict, as might be the case if the management of a bank directed business to its auditor, or his firm, and later it should become the duty of the auditor to criticise the loans made by, or transactions carried out by, the management. This provision is that the auditor of a bank cannot undertake any work or accept any retainer with outside corporations if such work or retainer comes through the bank or any of its officers.

Then it is also now provided that one of the two auditors must be changed at the end of each two years. the intention being to prevent the work falling into routine methods. and to secure a fresh judgment upon the conditions in the bank.

More Details Reported

The new act provides for greater particularity in the returns, and places upon the directors the responsibility of determining what are "current loans" within the meaning of the act. If a loan has not had interest paid upon it for two years, it cannot be classed as a "current loan" in the published returns, unless the directors, after enquiry, declare the loan to be a good and realizable loan. It sometimes happens that loans on which no interest has been paid for two years are adequately secured and in such case the directors can declare them good loans, but the responsibility will rest upon the directors

There is no doubt that this provision, coupled with the audit provisions in the new act, as soon as it became clear that they were to come into operation, had a remedial effect upon the banking situation. Directors and executives who were approving of and signing returns realized that the new provisions made it impossible to go on as before; that the more explicit information called for rendered revision of the figures for reserves and capital necessary, and in the most recent case (La Banque National) brought about a complete reorganization upon a new and sounder basis.

WANT AID FOR PROSPECTOR TO DIAMOND DRILL

Suggestion is That Prospectors Should be So Aided by Government

GEOLOGISTS TO AID

Head of Lakes Paper Would Have to Go Further—Would be Quicker

By all indications Thunder Bay district should be the logical source of iron for all Canadian industries. There is an area, extending from the international boundary to east of Lake Nipigon, in which there are better surface prospects for the discovery of iron in merchantable quantities than there ever were on the surface of the iron ranges on the United States side of the line, says the Fort William Times-Journal.

Prospecting for iron within a short distance from the city of Fort William has shown that iron is found on the east side of Lake Nipigon, near the head waters of the Black Sturgeon River, in Conmee township and that vicinity, near Whitefish Lake, on Hunters' Island, to mention a few of the points where strong indications of iron have been found, with ore of a fairly high grade, to say nothing of the billion or more tons of the Matawin range, on which the ore is of lower grade, and more like that which is being beneficiated at Babbitt on the other side of the line.

Scarcely Touched

In spite of this evidence that the district is richly endowed with iron, the work of proving up these iron deposits has been scarcely touched. The reason for this is probably that the United States got there first. If by any chance the work done on the Mesaba and other ranges had been done on the extensions of these ranges in Canada, the American furnaces would have been drawing their ore supply from the Thunder Bay district. But as it is now, the iron mines of the United States not only supply all their own furnaces, but the Canadian furnaces as well. The problem that has to be solved is how to bring Canadian ore to Canadian furnaces at a figure that will compete with the ore from the United States mines.

Drilling the Need

This requires, at the start, investigation and exploration, and any measures adopted by a government should take this into consideration. Hon. Mr. Ferguson, in his address at the Soo, took this view, and the first announcement that he made was that the Ontario government would put trained geologists in the field, to conduct the exploratory work. But, on the other side of the line, the biggest deposits of iron were not found by surface exploration but the use of diamond drills, without which the faith of the men who were prospecting for iron would not have been justified. The average prospector is a poor man, and the cost of diamond drilling is beyond his means. If the work of diamond drilling were taken off the shoulders of the prospector and done under the direction of the government's trained geologists, the development of a Canadian Mesaba range in Thunder Bay district would be brought much closer.

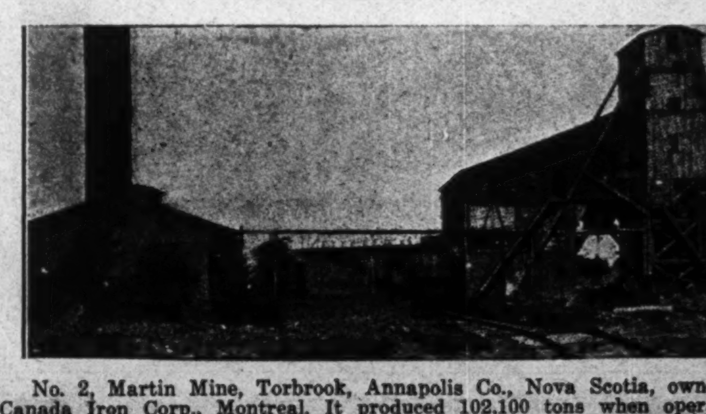
Favored by Member

This was urged on the Dominion government some years ago by Dr. Manion, member for Fort William, when he asked that the policy of a bonus might be supplemented by aid in exploratory work. If a granting of a bonus would set drills to work in this district, well and good, but the government itself could set the drills going and bring the development of our iron resources to pass much more quickly. Then the question as to what is necessary to be done in order to get Canadian smelters to use Canadian ores can be settled.

Meanwhile the interest that is evidently being taken in the subject by the Ontario government is an indication that nothing will be left undone to establish a really Canadian iron industry.

STEEL LEADERS' VIEW OF IRON ORE SITUATION

The report of the Iron Ore committee of Ontario sets forth the serious view which the steel leaders of the Dominion hold in regard to the iron ore situation. They quote one operator whose experience dates back to the beginning of steel manufacturing in Ontario, as stating that there is not half as much free ore available for Ontario furnaces as there was five years ago.



No. 2, Martin Mine, Torbrook, Annapolis Co., Nova Scotia, owned by Canada Iron Corp., Montreal. It produced 102,100 tons when operations ceased in 1913.

The
Place Where the
East Meets the
West

KENORA

ONTARIO

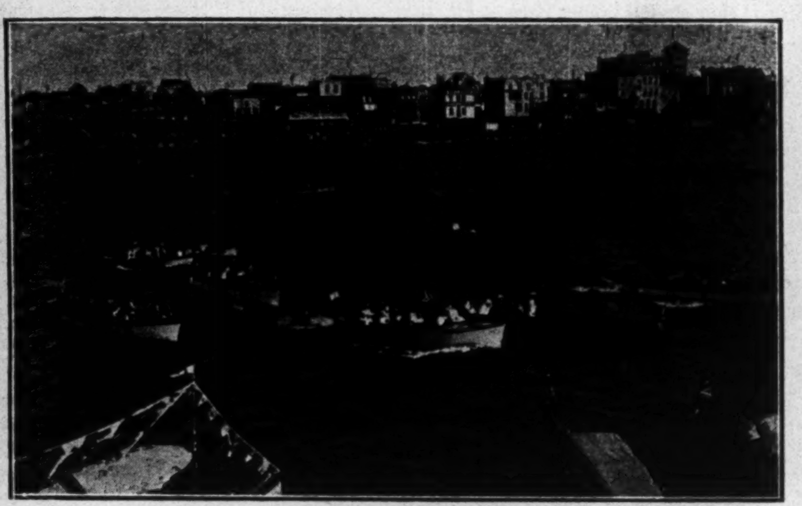
A
Growing Industrial
Community and
the tourist centre
of the Great West

Picturesquely Situated at the North End of The Lake of The Woods on the C. P. R. Spout of the Funnel

Present and Potential Resources

THE Town of Kenora is picturesquely situated at the north end of the Lake of the Woods, on the main line of the C. P. R., 130 miles east of Winnipeg. With the exception of Keewatin, its next door neighbor, it is the most westerly town in Ontario, and is the centre of a rapidly developing district, pregnant with great possibilities. The natural resources of the district have hardly been touched, and the next few years will witness a development which will place this section on a par with the most rapidly developing portions of the great expanse of Northern Ontario. With an almost inexhaustible wealth of timber in all directions from Kenora; with well defined mineral deposits, both in gold and iron, within easy reach; and with agricultural development keeping pace, there would appear to be no limit to healthy progress.

In addition to being on the "spout of the funnel" of the C. P. R., Kenora has direct shipping connections through the international waters of the Lake of the Woods, with United States points. A boat service on the Winnipeg river also connects with Minaki, on the Canadian National Railway to the North. Kenora is strategically situated as a distributing point and its trade will grow as this great new district develops.



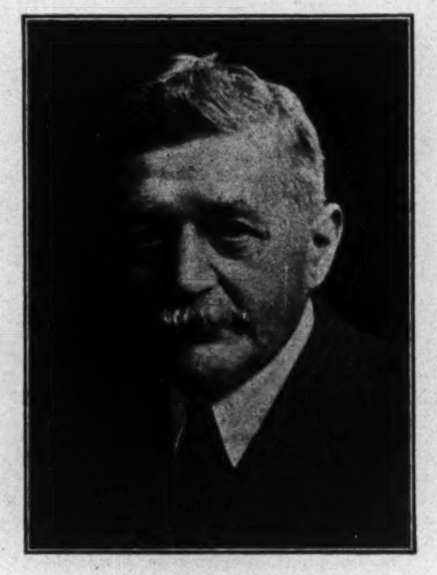
Northwestern International Regatta, Kenora

A Great Power Centre

Within fifty miles of Kenora, on the Winnipeg and English rivers, there is no less than 400,000 horse power available to turn the wheels of industry.

During the past year the Backus Brooks Co. completed the development of 12,000 h.p. on the east branch of the Winnipeg river, and this spring they will commence developing from 15,000 to 20,000 h.p. on the western outlet of the Lake of the Woods. Both these powers are within the boundaries of Kenora.

As a place of residence, Kenora has no peer in the west. It has all the factors that make town life pleasant, and in addition you can enjoy the charm of the wild, within a few minutes' ride in either car or motor boats. There is good fishing during the season, and in the fall the surrounding district is a hunter's paradise. It all combines to make a happy, contented population, where strife is unknown.



Mayor Brenchley

J. Hooper, Town Clerk

The Lake of The Woods

When La Verandrye discovered the Lake of the Woods, it was then, as now, a vision of wondrous beauty, and a trip among the 15,000 or more delightfully wooded islands, presents a picture that cannot be erased from memory. It is the summer playground for Western Canada, and yearly an increasing number are seeking this island-dotted lake from the large cities to the south. It is particularly the summer resort of Winnipeg people, and hundreds of its citizens have erected charming summer houses on the island shores.

To accommodate the traffic, and in addition to its regular train service the C. P. R. runs two "Campers' Specials" every week-end to Kenora, and last summer no less than 13,017 tickets were sold in Winnipeg for the Lake of the Woods.

To accommodate this ever-increasing tourist trade the citizens of Kenora a few years ago erected a modern, palatial hotel at a cost of over $300,000. Last year the C.P.R. built their Devil's Gap Bungalow camps, about two miles from town, where the transcontinental tourist finds rest among delightful surroundings.

More than five hundred motor pleasure boats ply the Lake of the Woods, and launch liveries are at your service.

Almost every known aquatic sport is popular here. Sailing races every week end, and every Dominion Day is held the regatta of the Kenora Rowing Club. The Lake of the Woods Course is the favorite one for the events of the North Western International Rowing Association, attracting crews from Duluth, Minneapolis, St. Paul, Winnipeg, Regina, Fort William and Port Arthur.

The Kenora Golf and Country Club has a splendid nine-hole course, in an ideal location.

Tourist Hotel, Kenora

Industrial Kenora

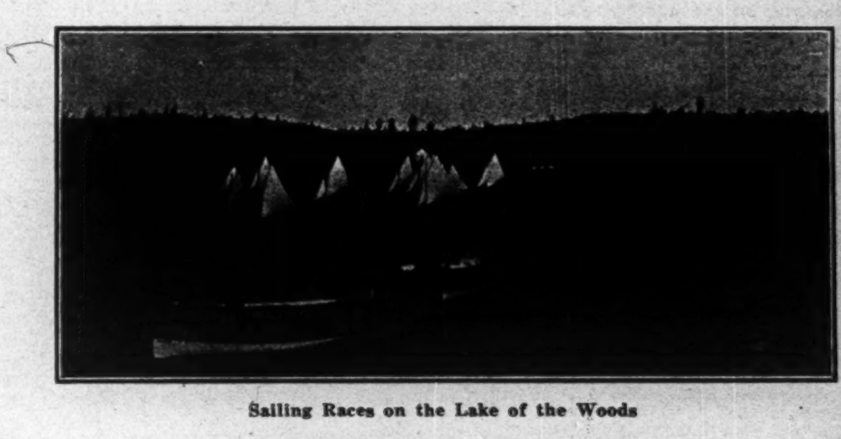
WITH a population of some 7,000 people, Kenora is one of the most prosperous communities on the continent. It is one of the chief divisional points on the C. P. R. system and during the year 1923, the big transportation company paid out at Kenora to employees, no less than $2,225,000, or a pay roll averaging $185,000 a month.

The flour mills of the Maple Leaf Milling Co. have a capacity of 3,500 barrels daily, and the Lake of the Woods Milling Co. at Keewatin, has an output of 10,500 barrels daily, making a grand total output of flour daily from these twin towns of 14,000 barrels.

The Keewatin Lumber Company operates two large modern saw mills, employing a large staff of men.

The Backus Brooks Company has expended during the past two years over three million dollars in the development of hydro electric power, and the erection of pulp and paper mills. This is but the first phase or unit of their development, which is ultimately aimed to reach in the next five or six years a capacity of 1,000 tons of paper per day.

There are also several smaller industries in Kenora, such as box factory, boat building works, etc.



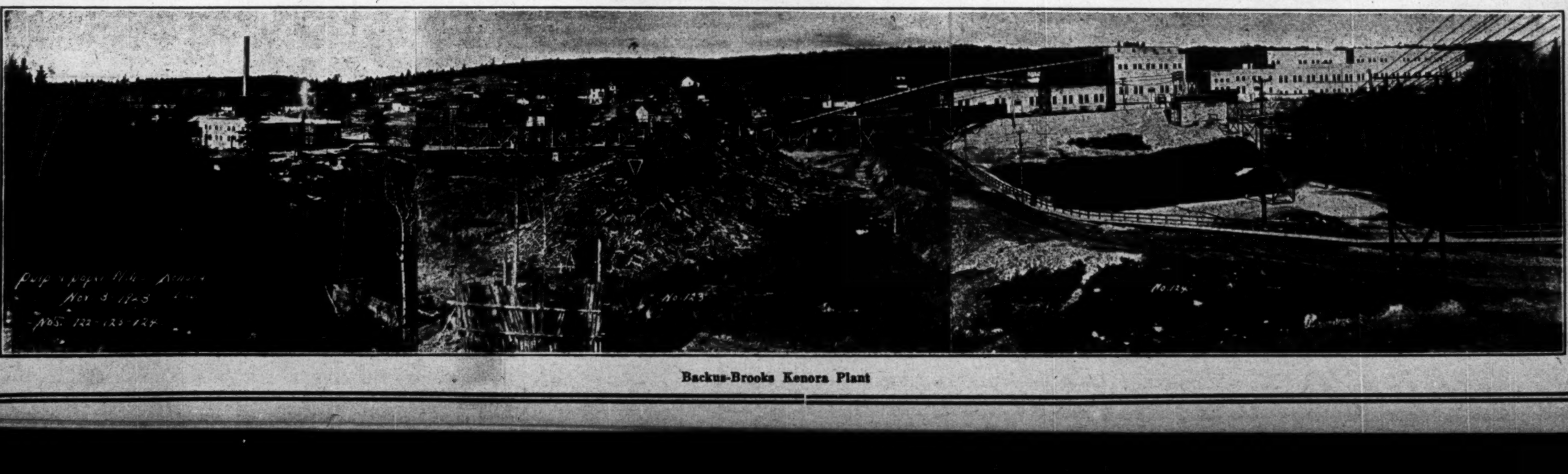
Sailing Races on the Lake of the Woods

What We Offer

Kenora is an up-to-date town, with all the modern facilities for healthy activity and enjoyment. It has a pure and unlimited water supply, both for domestic and fire-fighting purposes. Educational facilities are furnished by public, separate and high schools, and a public library. It has two large, splendidly equipped hospitals, where patients from all over the district are treated. There are seven churches in town, and it is the seat of the Anglican Bishop of Keewatin. It possesses splendid stores, capable of supplying every need. There is an admirable community feeling among its citizens, which, along with its natural attractiveness, combines to make it an ideal residential town.

Banks and Govt. Office

Meeting the financial requirements of Kenora business are four banks, the Imperial, the Bank of Nova Scotia, the Royal, and the Dominion Banks. The Court House and registry office for the district are located here, the Crown Timber agent's office, the Crown Lands office, the Mining Recorder's office, and also the Customs and Excise offices.



Backus-Brooks Kenora Plant

AIDING IRON ORE DEVELOPMENT A VEXED PROBLEM

Canada's Leaders Tried Hard to Aid Industry, Says Ferguson

The present proposal to extend an olive branch in the form of a bounty to aid the development of the iron ore industry in Canada is not the first nor the second effort along that line. Premier G. Howard Ferguson has been giving the mattter some study. Recently, he reviewed the history of the development of Canadian ores. He said that one of the most difficult problems with which the founders of the national policy had to deal was the encouragement of the iron industry in Canada. They were confronted by the fact that for twenty years pig iron had been admitted free into the country and the market was controlled by the foreign products. In the United States the iron industry was firmly established, and was entrenched behind highly protective duties. The smelting of iron in Canada would call for a large investment of capital and the assurance of reasonable protection from destructive competition. Pig iron was the raw material for the entire iron industry, covering a wide range of products and capable of great development.

It was felt that a highly protective tariff on pig iron would ultimately increase the cost of every product of iron and prove a handicap to Canadian manufacturers. For these reasons a moderate degree of protection for the production of pig iron was adopted in 1879, when a duty of $2 a ton was imposed. It was desirable, however, to make special provision for the encouragement of the use of Canadian ores, and this was done in 1883, when the system of bounties was inaugurated. He added:

"The legislation adopted in 1883 provided for a bounty of $1.50 a ton on all pig iron produced in Canada from Canadian ores during a period of three years. It also provided that at the expiration of three years the bounty should be reduced to $1.00 a ton and continued at that rate for a further period of three years. In submitting this proposal Sir Leonard Tilley, the Finance Minister, pointed out that the industry was of great importance, because the value of iron, when manufactured, is mainly labor of the country in which it is produced. In subsequent years the terms of the bounties were extended to give greater assurance of permanence to the industry and in 1884 the import duty on pig iron was doubled. This system prevailed with some variations down to 1897, when it was changed under Liberal auspices.

The Laurier Government reduced the duty on pig iron and increased the bounties. It also applied the bounties to the product of foreign ore as well as Canadian ore. Pig iron from domestic ore was now given a bounty of $3 a ton and from imported ore $2 a ton. At the same time the bounties were extended to other products of iron. This had the effect of reducing to some extent the advantage enjoyed by Canadian ore and enormously increased the expenditure. The highest payment made in any one year under the previous arrangement was $169,215 in 1896, whereas, under the revised scale of bounties in 1908 it reached $2,303,153, of which a relatively small amount went for the refining of Canadian ores. In 1912 the bounties lapsed after Canada had spent $7,707,648 on pig iron bounties, and altogether $17,396,434 on all the various iron and steel bounties.

"It is of interest to observe that Sir Oliver Mowat undertook in 1894 to encourage the smelting of native iron ore in this province by means of a bounty. A deputation had waited on the Government and urged the granting of a bounty of $2 a ton on pig iron. Sir Oliver met them half way. His Government introduced legislation granting a bonus of $1 a ton for five years on pig iron produced from ore mined in the province, but attached certain limitations. It was provided that not more than $25,000 was to be paid in any one year and that the whole expenditure was not to exceed $125,000. The payments were, in fact, spread over a period of nine years during which time the native ore smelted in Ontario amounted to 386,498 tons. Provision was made that should the production of pig iron exceed 25,000 tons in any year, the bonus per ton would be reduced proportionately, so as to keep the total payment within the sum of $25,000. The actual quantity of pig iron produced from native ore on which the bounty was paid during the period it was in force, was 221,237 tons. The grant of $125,000 therefore averaged on the production of the period about 56 cents a ton. The bounties lapsed in 1904.

"As a further means of encouraging the use of Canadian ore, legislation was enacted in 1897 by Ontario providing that the Government might pay 50 per cent. of any cash subsidies due to railways in railway steel or iron containing Ontario ore to the extent of at least two-thirds of the metal."

Report on Geology Along Manitoba-Ont. Boundary

The Ontario Department of Mines has issued a report on the geology along the Ontario-Manitoba boundary line from the point where it crosses the Winnipeg river to the point, 170 miles to the north, where it turns northeastward. Geologists accompanied the surveying party and mapped the topography and rocks within reach of the line on either side. The survey occupied the seasons of 1921 and 1922, and the geologists for the respective years were E. M. Burwash and H. C. Rickaby. The southern half of the line crosses the eastern end of the pre-Laurentian rocks (volcanics and sediments) that contain the Rice lake gold prospects further to the west. The northern half of the line crosses only granitic and gneissic rocks of the Laurentian, with the exception of a small area of older rock near its northern extremity. In 1922 the party had the assistance of an airplane of the Air Board in leaving the field. The report is accompanied by maps on a scale of two miles to the inch.

Romantic Story of Early Days of N.-Western Ontario Intimately Told by One of Hardy Pioneers

(Continued from page 22)

placer mines were infinitely more attractive than the quartz mines of Ontario. Then, the field was absolutely new, and the few mining engineers who came here had it all to learn; it was safer and easier to say that a prospect was no good than it was to recommend expenditure and risk a reputation. Again, of actually experienced mining men we had none.

General Wilkinson was a retired army officer, George Glass was a North Dakota farmer, Howard was a druggist, the Neepawa crowd were country business men and farmers, neither Hon. Robert Rogers nor Hon. Robert Watson could be called mining men. A bunch of Detroit post office employees were at the head of the Paymaster, and the list could be lengthened interminably.

Guided by Mediums

A story of a conversation I chanced to overhear will show the calibre of some of the mining men from the United States. I was sitting in the bow of the "Clipper," going down the Lake of the Woods, and by me were three men who had come from Buffalo to look over prospects. I hear one say: "I consulted the Bangs Sisters before I came away, and they told me that I would have a profitable journey if I went north." "Oh," replied another, "you go to the Bangs Sisters, do you? I always go to Farmer Robinson for advice; he is the best clairvoyant I know." These presumably hard-headed business men had sought the advice of mediums before making a trip into our mining country!

Another reason for failure, which is very apparent now, but which could not be drilled into the heads of the company presidents and managers—amateurs all—was that this is not a country where money could be made from a mine from the grass roots down. The sight of the visible gold—and there is plenty of it there—and the figures on their assay certificates persuaded them that they could reap a fortune while they were developing, a theory that caused the mistake of under-financing and too speedy installation of refining machinery. They were not without their excuses, and men ignorant of the elements of rock mining, as we all were, might easily be taken in. I recall an old prospector, about 75 years of age, who wintered on his claim and spent his winter evenings in his shack pounding up rock by hand and washing out the gold. He cleaned up in his evenings $200 in gold before spring. Then there was Paul Gasse, a French prospector, who installed a little two-stamp Tremaine mill at one of his properties and used to come there, whenever he needed a little money, and, with one man's assistance, run through enough rock to make him five or six hundred dollars in a few days. He never could keep that up after the surface ore was used up, but incidents like this seemed to the ignorant newcomer to warrant the installation of a mill right at the start. I was party to the sale of a very promising location to an American company, and, after the deal was closed, suggested that they should mine for three years before thinking of a mill. My experience was nothing. "No, sir," said the president of the company. "Look at the vein we have; we will put in a mill and begin making money right away!" The mill went in, and one of the most promising prospects of that district has been idle for twenty years.

Re-opening Old Property

However, from 1896 till 1903 the area over which gold was being found kept growing wider and wider. It was about 1900 that Sturgeon Lake began to figure in the mining news, and here again the story of marvelously rich surface showings was repeated. There was no National Transcontinental then, and the trip was made from Osaquan, near Ignace, on the Canadian Pacific, by canoe, over a distance of 90 miles to the lake. I was in there when the Anthony Reef was just being opened. From one pit gold in nuggets was being taken. An open cut had been made near Couture Lake in the breast of which one could see rock dotted with visible gold. Yet it was worked in only a half-hearted way, and it is to be hoped that those who have started to reopen it will apply such methods as have made the Porcupine mines a success. The Shores, of Detroit; Symmes, of St. Catharines, and half a dozen others, made the trip through to the lake, even transported machinery to their claims, and, in most cases, spent what money they had raised, and, failing to raise more, were forced to quit. But Sturgeon Lake had veins that would have driven any prospector wild. No one has yet done enough work there to say whether there is gold at depth. In those days, to run into ore at fifty feet down, a little leaner than that on the surface, was enough to bring the verdict that this was nothing but a surface country.

The New Klondike, south of Dyment station, was almost the farthest east that gold discoveries extended. A region apparently barren of gold stretches from Tache to Bonneur. Just at Tache, about half a mile from the station, was the Gold Quartz mine. I was there when E. H. Hilborn was in charge, a man of advanced age, who had made his money in salt, but who knew nothing either of gold or of mining machinery. His gang said that his peculiarity was that he wanted them to subsist mainly on buttered toast, and they growled for beef and beans. Hilborn claimed that his ore carried good values, but some years ago, while passing Tache I watched to see if there was any trace of the old Gold Quartz, but of the camps, which had been close to the railway line, there seemed to be no vestige left.

The Lost Messiah

Tache reminds me of one romance of the gold field, such as every gold camp seems to breed. It was to Tache that there came out from the south a half-breed, Paul Messiah, who had been prospecting along the Little Wabigoon River. He was very ill, but carried with him a little pack. He flagged a train and was taken to the hospital at Kenora, where he was found to be in the last stage of pneumonia, and soon after his arrival he passed out. His pack contained some of the richest specimens of free gold that had ever been seen to that date, but Messiah died without being able to speak or to tell whence it came. Since that time dozens of men have scoured the woods south of Tache for the lost Messiah claim without success. It is said that there is still living near there one man who was with Paul when the find was made, but he is convinced that ill-luck haunts the spot, and thousands of dollars would not tempt him to return there.

No story of these gold fields would be complete without some mention of the mines which were developed from the other end of the district, by people in Fort William and Port Arthur. One of the very first discoveries was made by the McKellars, of Fort William, and was named the Huronian mine. It lay west of Shebandowan Lake, and was said to be rich, but the gold was in the form of telluride, which, in the early days was regarded as a great drawback. It was never actually developed. But this gave prospecting a start, and soon a string of prospects was surveyed along the course of the Seine River, the trail to them running south from Bonheur station, on the Canadian Pacific. Today they are more accessible from the Canadian National. James Hammond was the moving spirit of that country. The Hammond Reef was discovered by him and a company organized, and Hammond Reef stock used to be quoted on the mining exchange, as also was that of the Sawbill, which was opened up by the Wiley brothers. Here, too, was the Railroaders mine, financed by a group of railway men and gold locations were surveyed right through to the Atikokan iron range. When James Hammond was killed, crushed to death under a big boiler which he was taking into the mines, the loss of this optimist, who possessed faith in the country and the will to put his faith to the test, seemed to shatter the enthusiasm of all the others, and gradually the work was abandoned. About the same time work was closed down on the Empress mine, still farther east, near Jack Fish, on the north shore of Lake Superior, which seemed to be the forerunner of yet another gold area, which is now being proved up by the work on the gold mines at Schrieber.

None Can be Condemned

I have merely touched a few of the high lights of these early gold-mining days. The properties I have mentioned have all been worked to a greater or less extent; none of them can be said to have been proven to be gold mines, but, and this is important, not one of them has been developed to the point where it can be condemned. I have little doubt that such work as has been done at Porcupine, if applied to many of those whose names I have mentioned, would result in their becoming producers, some small and some big. There are exceptions, such as the Glass Reef, which I do not think will ever be a mine. But, on the other hand, there are countless other prospects, surveyed twenty-five years ago and more, on which a test pit or two has been sunk and a little stripping done, enough to lead one to believe that they are worthy of investigation. I travelled all over one, a big location about four times the usual size, which used to be known as the Swede Boys Claim. I had been asked to look it over and report on what the vein was like. I traced the vein from outcrop to outcrop right across the location and found visible gold at one point where the vein was exposed. It is that sort of experience which leads one to believe that there are probably a dozen claims that will make mines for every one that has been worked to any extent.

The areas that I have swiftly dealt with are really enormous. From Shoal Lake, on the Lake of the Woods, at the Manitoba boundary, through the Rainy River to Rainy Lake, is all prospective gold-mining country. North from Rainy Lake lies all the Manitou region, leading to the Wabigoon and Dryden mining field. East is the New Klondike, and then northeast again lies Sturgeon Lake, while south of the Canadian Pacific is the rich Seine River country. Add to this the gold areas that lie near Schrieber, where the McKellar-Longworth property is being developed, and where the Duck Lake gold mines are only a few miles north, and it will be found that there are several thousand square miles of territory awaiting the prospector and the miner. And the end is not yet, for I remember an old friend of mine, the late James McDougall, bringing down from Cat Lake, away to the north in the district of Patricia, a bagful of wonderful gold-bearing rock, as rich as anything that has been found in the explored regions, with few exceptions.

To us, who have known this district intimately, and have still cherished our faith in it as a goldmining country, the work at Porcupine has given fresh hope, for we believe that, not even in that country, can any surface prospects surpass those that we have seen in the western end of the province.

BRIQUETTING OF COAL IMPORTANT TO THE DOMINION

Utilization Board's Experiment May Give Vast Coal Areas Commercial Value

Carbonizing has been the main trouble of the Lignite Utilization Board, which has been conducting tests on the lignite coal at Bienfait, Sask. The board feels confident that this has been practically solved, says Chairman R. A. Ross, in an official review of the board's activities. He says there is nothing to hinder the commercial exploitation of this process. He summarized the accomplishments of the board as follows:

"The board has developed completely both in the laboratory and on full scale an entirely new type of carbonizer which gave real promise of success, and one which with the advance of technical knowledge of high temperature metals, may still prove of very great value.

"With the co-operation of the American Bureau of Mines, Washington, the board has aided materially in the development of another retort originally designed by O. P. Hood and W. W. Odell of the American Bureau.

"The Board has practically solved the problem of briquetting lignite char. All known binders have been experimented with.

"The board has erected a flexible demonstration plant of solid permanent character at Bienfait, and provided accommodation, water supply and power at reasonable costs.

"The board has produced briquettes at Bienfait of a fairly satisfactory quality, and the board is also prepared to produce more briquettes there after making certain revisions to the layout of the briquetting machinery, with the mechanical arrangement and sequence of which we are satisfied.

"The board would also point out that Canada possesses the second greatest coal supply of any country in the world. Of this coal about 77 per cent. is in the form of lignite and sub-bituminous coals. It is inconceivable that such a vast natural resource should be dormant permanently. Therefore, this lignite problem must be solved somehow, some time, by some agent. To date the lignite board has brought the solution of one part of this problem almost to completion. This is a very distinct advance since 1918, and shall the work now stop?"

High Wages as Great Barrier to Alberta Coal as Freight Charges

Miners Will Not Adopt Schedule to Meet Conditions Though Large Market Means Much to Them in Steady Employment and to the Country.

From Our Own Correspondent.

CALGARY.—One feature which will bring into unusual prominence the negotiations between coal miners and operators in Alberta, or what is known as District 18, which will take place in Calgary next month, is the Ontario market. During the past year strenuous efforts have been made to put Alberta coal into Ontario. Beginning with private negotiations between the operators and the railways, the scope of the movement became enlarged and encouraged by the appointment of fuel committees of the Federal House and Senate, and by the active interest and assistance of the provincial governments.

Shortage of anthracite and deterioration of quality in Ontario were sympathetic factors favoring the development of a market for Western coal. Experiment and use through sample shipments to Ontario demonstrated that Alberta coal was satisfactory. Against these favorable factors were the great distance between the provinces, with the consequent high freight rates, the high cost of production at the mines, and the opposition of an established business in Ontario.

Trial Shipments Satisfied

The satisfactory results obtained from the trial shipments resulted in the government representatives in Ontario, particularly the premier, giving full support and encouragement to the movement, evidenced especially by the securing of an additional 10,000 tons to the quantity which the provincial authorities in Alberta had already secured over the National Railways to Ontario, and by the continued efforts to accomplish an arrangement which would develop a permanent business.

To enable such an arrangement two problems must be solved. The first is the determination of a freight rate which will allow the coal to enter Ontario on a competitive basis, not in times of emergency, but at all seasons, and under normal conditions of market. The second is the necessity for a revision of the wage scale in effect in Alberta mines.

Two-thirds of Alberta's annual tonnage is produced by mines whose employees are affiliated with the United Mine Workers of America. One-third comes from other mines whose percentage of the total output has been growing in recent years, and whose operations are less expensively conducted.

Miners' Demands

At the convention recently held in Indianapolis, the United Mine Workers decided on a policy of no reductions in wages, and a four-year contract. Since their return from that convention the district officers of the union in Alberta have announced their adherence to the Indianapolis policy, and their intention of securing the same contract arrangement here in addition to the adjustment of certain matters of local effect.

What attitude the operators will take here is not known. Many of them frankly confess the opinion that their signature to such a contract would be tantamount to closing their mines down. This is borne out by events of the past year, particularly in the northern field, where a number of important mines have been running for some time on half time, and in some instances, have closed down.

Among the operators who meet the miners in convention on March 1 is a group whose operations are confined to bituminous, or steam coal. Another group, representative of the Drumheller field, whose product made such a favorable impression in Ontario last year, are producers of domestic coal only. In their field, the annual period of operation is confined to the active months for the domestic consumer, namely, from September to March. The rest of the year they are idle, or on short time.

Want Mines to Help

To this group the possibilities of a market in Ontario is particularly important. Steadier operations during the summer would solve one of their greatest difficulties, and they naturally look to the miner for some co-operation in securing work during what at present is idle time. The miner argues for high wages because of short-time operation, and the policy of the union holds out little hope that the opportunity to solve the problem will be dealt with on its merits.

It is another instance of the deadening effect not only on the industry but on the community of the application of policies formulated without consideration of, and in fact with utter disregard for, the peculiar conditions of the locality to which they are applied.

There are good grounds for the belief that the development of a market in Ontario is probable, given reasonable co-operation by all parties. It is the more to be regretted that the employees, to whom the greatest benefit would accrue in steadier occupation throughout the year, should find their hands tied by influences entirely beyond their control.

How Much Longer?

It is time to ask how much longer the Indianapolis policy is to set the price of coal in Western Canada which cripples all effort in legitimate expansion. The value of the Ontario market to Canada can hardly be realized. Approximately, Ontario pays the United States $150,000,000 annually for fuel. But all this is nothing to the Alberta officials of the United Mine Workers of America it it means any concession in the miners' high-peak, war-time wages.

In order to show clearly how Alberta operators are handicapped in securing the Ontario market it is interesting to note the following comparisons in wages as at September, 1923. These are based on an eight-hour day, with the exception of the last four classes in Nova Scotia where the day is eight and a half hours:

	Alta.	Nova Scot.	Vanc. Isl.	U.S. Anth.	U. S. Bit.
Contract miners	$10.00	$5.84	$7.14	$....	$....
Hand miners	7.50	4.85	5.07	6.08	8.90
Hoisting engineers	7.39	4.35	5.94	5.50	....
Drivers	7.21	3.60	4.72	....	7.50
Pump men	6.89	4.00	4.72	....	....
Laborers	6.58	3.25	4.24	4.80	6.60
Machinists	8.14	4.35	6.31	5.60	....
Carpenters	8.14	4.00	5.59	5.60	7.20
Blacksmiths	8.14	4.10	6.06	5.84	8.00

Tonnage Mined

For the ten months to October 31 1923, 2,300,000 tons of lignite co. were mined in Alberta. Of that quantity approximately 1,000,000 tons were mined by mines not in the union, or approximately 43 per cent. was mined by non-union mines. The year 1920 only 33 per cent. was mined by none-union mines. The large mining companies controlled by the unions are simply losing out to the non-union mines, and, owing to the increased competition, have not been able to pass the increased cost to the consumer, with the result that not more than five per cent. of the tonnage from the union mines is mined at a profit.

Here is another comparative table showing the difference between rates paid by non-union and union mines in Alberta:

	Union Mines	Non-un. Mines
Machine miners	$8.02	$5.50
Timber men	7.50	5.50
Hoisting engineers	7.39	6.70
Laborers	6.58	4.50
Blacksmiths	8.14	6.25
Carpenters	8.14	6.50
Machinists	8.14	6.25

In the Edmonton district a Canadian labor union of Canadian men are producing coal at a rate which would enable them to obtain the Ontario market. That they are receiving a fair wage is evidenced by the fact that although the United Mine Workers of America spent many thousands of dollars in an endeavor to organize the district one year ago they met with little or no success. If similar rates were obtained in Drumheller—the great domestic field where all the mines are under the control of the U. M. W. A.—Sir Henry Thornton would have an easy time in solving the Ontario market situation.

It is astounding to note the increase in miners' wages in Alberta during the past twelve years. These are as follows:

	1912 10-hr.dy.	1923 8-hr.dy.
Hand miners	$3.30	$7.50
Hoisting engineers	3.78	7.39
Drivers	3.03	7.21
Pump men	2.75	6.89
Laborers in mine	2.75	6.58
Laborers on surface	2.47	6.58
Machinists	3.40	8.14
Carpenters	3.85	8.14
Blacksmiths	3.85	8.14

Increase Rapid

The average increase is 135 per cent. If a reference is made to the bulletin issued by the Dominion Department of Labor it will be found that for the whole of Canada for the same period the increase in wages in the building trade was 66.4 per cent., metal trades 74 per cent., and railways 57.4 per cent., so that miners' wages have been increased about 60 per cent. more than other trades requiring more intelligence and experience.

These are some of the outstanding factors in the Alberta coal mining industry, which are militating against coal from this province being shipped to Ontario. In a nutshell the position is this: Sir Henry Thornton naturally states the government lines cannot carry the fuel at a loss; not five per cent. of the union mines are making any profit on their coal; while the officials of the United Mine Workers of America say they will not entertain any cut in wages which might make it possible for that market to be secured. If the latter remain adamant in their forthcoming negotiations for a new contract with the operators, then the situation might just as well at once be faced fairly and squarely. It simply means that no Alberta coal will be shipped to Ontario.

PAPER INDUSTRY'S GROWTH REVEALED; BLUE BOOK STORY

(Continued from page 7)

	Quantity	Value
19..	81,793	8,219,841

Boards

Year	Quantity tons	Value $
1917	54,080	3,543,164
1918	87,749	5,551,409
1919	137,678	8,892,046
1920	158,041	12,904,662
1921	89,120	6,225,948
1922	113,200	7,000,081

Other specified paper products

Year	Quantity tons	Value $
1917	11,261	1,382,205
1918	35,862	3,267,142
1919	40,065	3,882,500
1920	30,726	4,222,724
1921	18,285	2,358,658
1922	25,650	2,508,325

Total paper

Year	Quantity tons	Value $
1917	853,689	58,750,341
1918	967,724	73,123,544
1919	1,090,235	87,752,843
1920	1,214,951	132,022,767
1921	1,018,947	106,553,935
1922	1,366,815	106,260,078

Pulp Production Also Increasing

The Government's report gives complete figures as well on the production of pulp.

The pulp and paper industry in Canada includes three classes of mills; those manufacturing pulp only, combined pulp and paper mills and mills manufacturing paper only. The product of the pulp mills is all made for sale in Canada or for export. In the combined mills the bulk of the pulp produced is used for papermaking in the same establishments but many of these mills produced a surplus for sale or export. Others do not produce enough pulp or pulp of the required kind for their own use and purchase a part of their supply on the open market.

Over half of the pulp made in Canada is used within the establishment producing it for further manufacture into paper. About one-third is made for export and the remainder is sold to paper mills in Canada.

Production of pulp in Canada including pulp used in the production of paper, has grown as follows:

	Mechanical Pulp		Chemical Pulp	
	Tons	Value $	Tons	Value $
1917	923,731	25,918,811	540,423	38,374,191
1918	879,510	19,112,727	677,683	45,243,446
1919	990,902	23,316,828	725,187	50,003,450
1920	1,090,114	49,890,337	848,528	90,053,999
1921	931,560	32,313,848	612,467	45,929,513
1922	1,241,185	31,079,429	897,533	53,615,692

Total Production

1917	1,464,308	65,515,335
1918	1,557,193	64,356,173
1919	1,716,089	73,320,278
1920	1,960,102	141,552,862
1921	1,549,082	78,338,278
1922	2,150,251	84,947,598

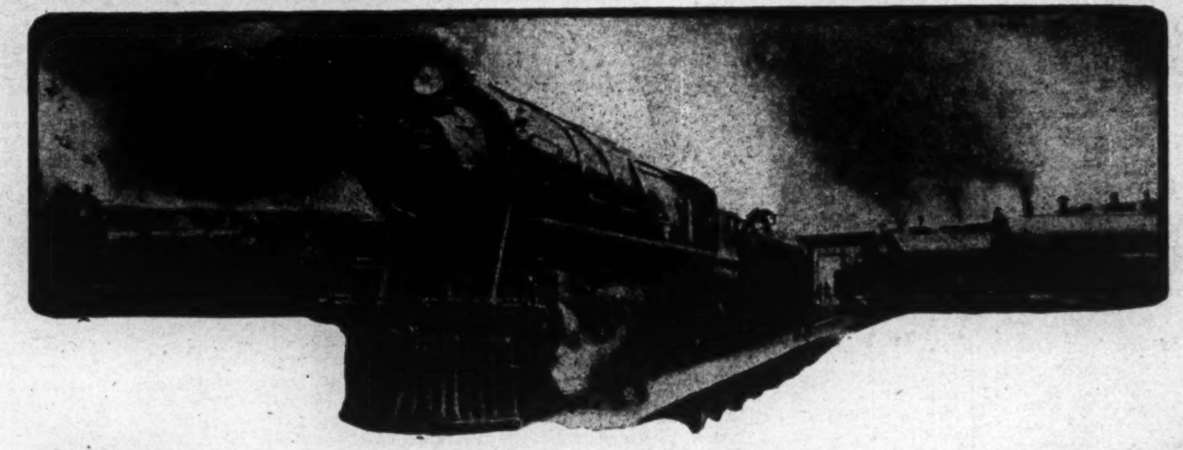
Important Changes in Federal Timber Laws

For some years the timber regulations applicable to Dominion lands in the prairie provinces, the railway belt and the Peace River block in the province of British Columbia, did not make any provision for a reduced rate of dues to be charged on fire-killed or dry timber. They provided that settlers and persons living in cities, towns and villages might obtain permits to cut up to 25 cords of wood each permit year, subject to ordinary permit dues. Provision was also made that permits might be granted without competition to cut fire-killed or dry timber, subject to the ordinary rate of dues.

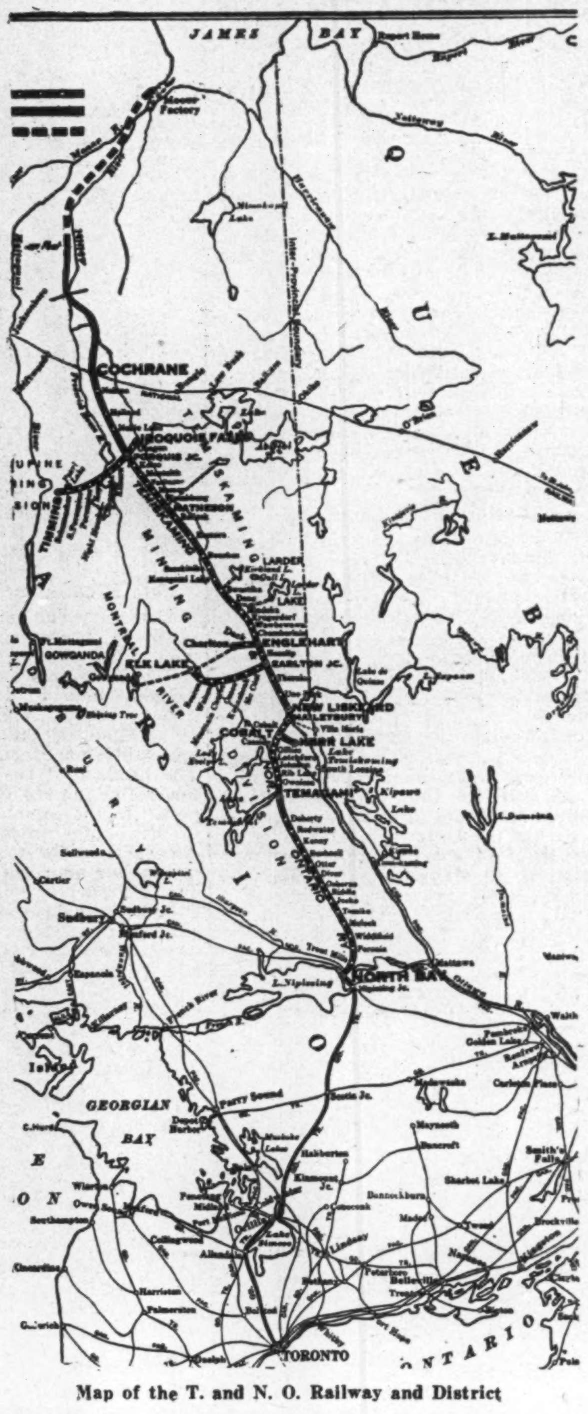
By order in council of November 20, 1923, the regulations were amended so as to provide that the rate of dues on all cordwood cut either under license or permit from fire-killed or dry timber shall be reduced to 25 cents per cord. The quantity which can be included in a permit for sale, has been increased to 100 cords per permit year. The section of the regulations which provided for the granting of permits without competition to cut fire-killed timber, subject to ordinary dues, has been rescinded, and provision has been made for the granting of permits at public auction to cut fire-killed timber on tracts not exceeding 9 square miles in area, subject to one-half ordinary permit dues, except cordwood, on which 25 cents per cord shall be charged. Provision has been made in the regulations whereby permits may be granted to owners and operators of mines to cut timber for the erection of buildings actually required in the operation of their claims, and for such quantity of cordwood as may be actually required for fuel in operating the mines, subject to ordinary permit dues, which in the case of cordwood cut from fire-killed or dry timber will be 25 cents per cord.

SWISS INDUSTRIES FAIR

The Swiss Industries Fair, taking place this year from May 17th to May 27th, affords to Canadians attending the British Empire Exhibition, an excellent opportunity to get in touch with Swiss manufacturers.



A Railway that Built An Eldorado



Map of the T. and N. O. Railway and District

ONLY a little over a decade ago that great section of Northern Ontario, a section greater than the British Isles in extent, was a wilderness given over to trappers and a few hardy pioneers and prospectors separated from the nearest railway of the province by 100 miles of almost impassable rocks and forests, its only outlet by the southerly end of Lake Temagami.

It was only with the coming of the Temiskaming and Northern Ontario Railway, begun in 1902 and completed to Cochrane in November of 1908, that the fabulous wealth of this great section has been realized.

The Great Clay Belt

The railway was planned to open up the great clay belt, a wooded section of undreamed fertility, estimated to contain 16,000,000 acres. This great virgin tract is a veritable promised land for the settler, where he can hew out his farm for himself and know that his labor and the cost of his land will be generously paid for in the value of the pulp wood obtained. This was the first railway to open up this country, and through it, its potential resources were opened to the public.

One of the World's Greatest Mining Areas

AROUND this railway, and dependent on it for the amenities of life, for the supplies necessary for development, for the means of getting the product to market, has grown up one of the world's greatest mining fields. Resources, as yet only dimly conceived, are awaiting development. What the next few years may show of gold and silver discoveries, and of other minerals, and oil, no one can foretell. All they know is that along almost the whole course of the railway, and up into the sections where extensions are proposed, stretches the great ore bearing rock formation. There is nothing problematical in it, except its extent. The mines in present and profitable operation make this one of the greatest mining sections in the world, and almost every week brings some new find that enlarges the known possibilities.

A Great Pulp and Paper Section

HERE again the Railway serves a great industry that without it could not exist. All the great timber resources of these illimitable forests are made available by this railway. About it has grown up a tremendous industry that at Iroquois Falls has built its own town to meet the needs of this industry. There is no limit to these resources. No drought can destroy this section, for it is watered by innumerable rivers which also provide enormous developed and undeveloped sources of power.

The Gateway to One of Canada's Great Playgrounds

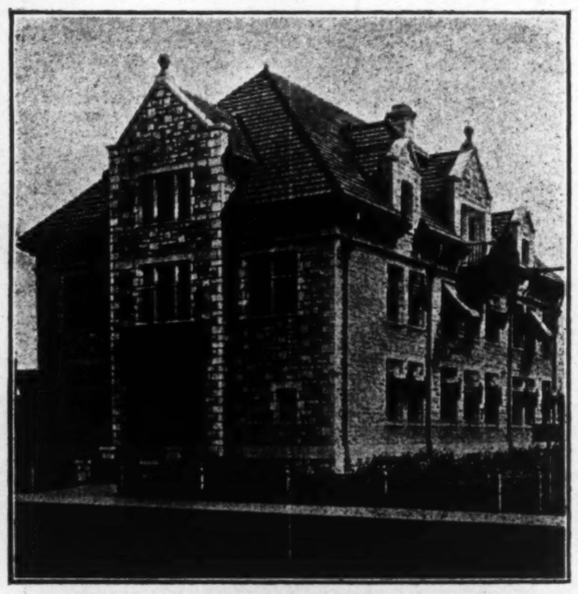
THE Temiskaming and Northern Ontario Railway has opened up one of the most delightful of vacation grounds. The Temagami section is almost world famous. Its lakes and rivers, as well as those that lie farther north, teem with fish. Its forests are full of game, and its natural beauties are unsurpassed anywhere.

Around the Railway have grown up a series of energetic and prosperous towns. With every advantage of the longer settled sections of the country these splendid towns are meeting the needs of this great northern country. All along the 330 miles of the railway are found these splendid towns that are growing and prospering with the abounding prosperity of this section.

It Serves a Section

IT IS a section that is logically served by the Temiskaming and Northern Ontario Railway. It is not subject to competition, and the annual production of the country it serves exceed the investment in the railway. During the past year the railway showed a net operating profit of 3 per cent., but this is only a beginning, because the resources of this section have only been scratched. With the coming years will come still greater development, and with it an added service for the railway, and an added profit to the province in this service. Already extensions are under way. Some seventy miles north from Cochrane are already under construction, and a development following the line of the Abitibi River to James Bay already decided upon. In addition, there is the extension of a branch line from Swastika to Larder Lake virtually completed to open up the great gold areas of that section.

That the Temiskaming and Northern Ontario Railway should eventually be a great asset to the Province of Ontario goes almost without saying. But it has done a greater service than that; it has opened up the fabulous resources of that North Country, has given it an adequate service, and has made the vast development of the past years a possibility, and has made its future assured.



Head Office of the Temiskaming and Northern Ontario Railway—North Bay

THE OPERATING COMMISSION

HON. G. HOWARD FERGUSON, Premier. GEORGE W. LEE, Chairman.
Commissioners—L. T. MARTIN, J. McLAREN.
Sec.-Treas., W. H. MAUND. A. J. PARR, Gen. Freight and Passenger Agent,
North Bay.

Temiskaming and Northern Ontario Railway

ONTARIO GOVERNMENT RAILWAY